

THE ACADEMY.

A Record of Literature, Learning, Science, and Art.

"INTER SILVAS ACADEMI QUÆRERE VERUM."

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General Literature.

Zoological Mythology; or, the Legends of Animals. By Angelo De Gubernatis, Professor of Sanscrit and Comparative Literature in the Istituto di Studii superiori e di Perfezionamento at Florence. 2 vols. London? Trübner & Co. 1872.

THE author of this book is already very favourably known in his own country and elsewhere by various learned and dramatic works, while the periodical *Rivista Contemporanea* of which he is the conductor enjoys a wide circulation. In the first class may be instanced his essay on *The Vedic sources of epic poetry*, and *The comparative history of bridal customs amongst the Italians and other Indo-Germanic nations*; amongst his dramas the most noticeable are *Roderick the last king of the Visigoths*, *Pierre de la Vigne*, *The Death of Cato*, and more particularly *King Nal*, all of which have been produced on the stage with great success, and some published in several editions. The latter drama, acted before a crowded audience in Florence on April 10th, 1869, has been translated into German by the poet Friedrich Marx (Hamburg, 1870). Gubernatis has also published a very valuable collection of tales (*Le Novelline di San Stefano*, Turin, 1869), which was accompanied by an introduction on the relationship between the myth and the fairy tale. The direction which his researches have principally taken, as well as the outline of their results, was plain from this and his other scientific works. The Vedas were his starting point, and in them, like other recent writers, he believed that the basis of most of the mythological conceptions traceable in the religion, the legends, and the popular tales of the Indo-Germanic nations was to be found. This view appears as the foundation of the work before us, for which the author, as we have seen, had prepared himself by very various studies, while their nature makes itself felt in a double direction, by comprehensive erudition and a bold flight of imagination, leading sometimes indeed further than he may himself intend, and sometimes revealing to him things that are invisible to a more unbiased spectator. But we must in justice admit that very few inquirers avoid the danger, when they once have adopted a system, of trying to force everything into harmony with it, so that even when it is sound in itself, much irrelevant matter is urged in its

support. Gubernatis himself is well aware of this, as he says at the end of the work: "The principal error into which the students of the new science (of comparative mythology) are apt to fall, and into which I myself have sometimes been betrayed in the course of this work, is that of confining their observations to one special favourite mythical point or moment, and referring almost every myth to it, and not taking sufficient account of their mobility and their special history, that is, of the various periods of their manifestation. One sees in the myth only the sun, another only the moon in its several revolutions, and their amours with the verdant and resplendent earth; one sees the darkness of night in opposition to the light of day, another the same light in opposition to the gloomy cloud; one the loves of the sun with the moon, another those of the sun with the aurora. These diverse, special and too exclusive points of view, from which the myths have hitherto been generally studied by learned men, have afforded ill-disposed adversaries an opportunity of ridiculing the science of comparative mythology as a science which is little serious, and which changes its nature according to the student who occupies himself with it. But this opposition is disarmed by its own weapons. For what does the concord of all learned men and scholars in this department prove? It proves, in my opinion, but one thing, and that is, the reproduction and confirmation of the same natural myths under multiplex forms, the representation by analogous myths of analogous phenomena, and that the variations met with in fairy tales are also found in myths." Gubernatis, I should add, does not depend solely and exclusively upon the Vedas, but observes himself (i. xii.): "As it would be unwarrantable to say that Sanscrit contains in itself all the European forms of language, it would be equally rash to assert that the Vedic hymns contain all our mythology. In them we only look for ancient and authentic proofs to demonstrate how, before the dispersion of the Aryans, certain essential myths were formed, and the norm or law of development of these being proved it will then be possible to reconstruct even the history of those that remain by analogy, and by employing the corresponding materials of the various popular literatures, including the Hindoo literature itself, which followed immediately after the Vedic, where we find legends and mythical notions which sometimes enable us to clear up and complete several

obscure Vedic passages, as well as sometimes offer us new myths of which none of the Vedic hymns that have come down to us preserve any trace. . . . All this abundance of mythical tradition having passed into the Hindoo literature gives it an especial importance as a means of comparison ; but as, notwithstanding this exuberance of legendary literature, many myths have disappeared entirely from the Hindoo tradition, we must acknowledge that India . . . cannot serve as the sole concentric type for all comparison. In some respects the Hellenic mythology and in others the Slavonian, Scandinavian, and German traditions offer far clearer evidences and display far more extensively the mythic motive (or original principle) which they possess in common with India ; in some cases (as already remarked with respect to language) the Indian element is absolutely wanting in the myth, whilst the European manifests extraordinary vitality and expansion." We see that though the Vedas serve as the starting point for Gubernatis' researches, his glance takes in a wide range beyond ; and in this he is perfectly right. Especially with regard to the later Hindoo literature I am able to agree with him from the most profound convictions ; on which point see also Julius Braun, *Naturgeschichte der Sage*, Munich, 1864, ii. 410, 419.

Before proceeding further it will be well to give an idea of the contents of the *Zoological Mythology* : it falls into three divisions, of which the first, discussing the "animals of the earth," is the most extensive, occupying the whole of the first and part of the second volume, while the remainder is devoted to the "animals of the air" and those of the water. The inequality of the different parts does not presumably result from an inferior abundance of material for treating birds and fishes ; but more probably from the author's having imposed limits on himself, as may be seen partly in the arrangement of the first section, for out of the 600 pages (in fourteen chapters) on the animals of the earth, the first alone on "The Cow and the Bull" takes up 283 pages. From this chapter, which it will be interesting to consider more in detail than the others, we can see what was the original plan, subsequently curtailed, for all. Sect. i. The Cow and the Bull in the Vedic Hymns. Sect. ii. The worship of the Bull and of the Cow in India, and the Brahmanic legends relating to it. Sect. iii. The Bull and the Cow in Iranian and Turanian tradition. Sect. iv. The Bull and the Cow in Slavonic tradition. Sect. v. The Bull and the Cow in the Germanico-Scandinavian and Franco-Celtic tradition. Sect. vi. The Bull and the Cow in Greek and Latin tradition. The other chapters are handled more compendiously, no doubt because the author was afraid of making the work too voluminous, and also because, having once set forth his fundamental theory at length, its further application might be left to the reader, assisted by occasional indications as to the bearing of the facts alleged. With reference to his task Gubernatis observes (ii. 427) : "I have had to prove in mythology its most humble aspect, that is to say, the God enclosed in the animal ; and inasmuch as amongst the various mythical animals which I have endeavoured to describe, several preserve the resplendent and propitious form of the god, they are generally considered as the form which the deity assumes either to feed secretly upon the forbidden fruit, or to fulfil a term of punishment for some fault of his ; in any case these forms never serve to give us a superlative idea of the divine excellence and perfection." But it is not only gods that take the form of animals, the most various natural phenomena undergo the same transformation ; and with reference to this peculiarity and the "primitive domain of the myth" Gubernatis has the following remarks (i. xv.) : "Although the first book bears the title of animals of the earth, the second animals

of the air, and the third animals of the water, there is but one general domain in which all the animals of mythology are produced, and made to enact their respective parts. This domain is always the heavens ; whilst the time during which the mythical action lasts is always subject to many variations, being now the day of twelve hours, now that of twenty-four, now the three watches of the night ; at one time the lunar month of twenty-seven days, at another the solar month of thirty ; sometimes the year of twelve solar, and sometimes that of thirteen lunar months. The drama of mythology has its origin in the sky ; but the sky may be either clear or gloomy, it may be illumined by the sun or by the moon, it may be obscured by the darkness of night, or the condensation of its vapours into clouds. Again, the clear heavens assume at times the appearance of a milky sea, this appearance gives rise to the idea of the cow, and hence the most splendid aspects of the sky are often represented as herds or flocks. The god who causes rain to fall, who from the highest heaven fertilizes the earth, takes the form now of a ram, now of a bull ; the lightning that flies like a winged arrow is represented now as a bird, now as a winged horse ; and thus one after another all the shifting phenomena of the heavens take the forms of animals, becoming at length, now the hero himself, now the animal that waits upon the hero, and without which he would possess no supernatural power whatever. . . . On the other hand, the cloudy or the dark sky assumed in the myths the aspect now of a grotto or den, now of a stable, now of a tree, a forest, a rock, a mountain, an ocean, and linguistic analysis shows how natural such equivocal meanings are ; and these having once taken root, it was still more natural to people the grotto with wolves, the stable with sheep, cows, and horses, the tree with birds, the forest with deer and with boars, the rock with dragons who keep guard over fountains and treasures, the mountain with serpents and aquatic monsters. In a stanza of a Vedic hymn to the gods Indra and Agni, composed with the greatest artistic elegance, the poet sings how the two gods fought side by side for a common conquest, which takes the different names of cows, waters, regions, light, and ravished dawns."

I have let the author describe his work in his own words, from which it is easy to see how extensive is the field upon which he has entered, and how easy it must be, even if his main theory is correct, to go astray in some of its applications, when one and the same conception (for instance, the cloudy sky) is supposed to be represented by the most various objects ; and this, indeed, he admits himself. Tylor too, a most cautious and thorough investigator, though favourably inclined to the theory, observes concerning it (*Primitive Culture*, i. 287) : "At the same time it must be clearly understood that the truth of such a general principle is no warrant for all the particular interpretations which mythologists claim to base upon it, for of these in fact many are wildly speculative and many hopelessly unsound. Nature myth demands indeed a recognition of its vast importance in the legendary lore of mankind, but only so far as its claim is backed by strong and legitimate evidence. The close and deep analogies between the life of nature and the life of man have been for ages dwelt upon by poets and philosophers who in simile or in argument have told of light and darkness, of calm and tempest, of birth, growth, change, decay, dissolution, renewal. But no one-sided interpretation can be permitted to absorb into a single theory such endless many-sided correspondences as these. Rash inferences, which on the strength of mere resemblance derive episodes of myth from episodes of nature, must be regarded with utter mistrust, for the student who has no more stringent criterion than this for his myths of sun and sky

and dawn will find them wherever it pleases him to seek them." Another highly competent judge, distinguished in the field of mythology not less than as poet and scholar, I mean Uhland, was still more severe upon the mythologists who like Gubernatis brought in the whole world of fairy tale to their studies; alluding to the ever living creative fancy of the people he says (*Schriften zur Geschichte der Dichtung und Sage* 8, 620): "We can receive gifts from poverty. It brings to the children of the rich the green Christmas tree of fancy from the snowy winter wood. Mythology is rich, but not so rich that its crumbs can give birth to the whole fairy world (Märchenwelt)." If I understand Uhland aright, he does not mean to exclude the *Märchen* altogether from mythology, only to oppose the extravagant tendency of some mythologists to claim for their own department every creation of the popular fancy. Gubernatis has given abridgments of a great number of Russian and hitherto unknown Italian stories, which are highly interesting in themselves and as contributions to the history of fiction; but it certainly appears as if he had often seen in them something more than is visible to an ordinary eye. Thus in giving an account of a Russian tale he says: "There was once a king who could not find a maiden beautiful enough to suit his taste. One day returning from the chase (the solar hero always meets the aurora, his bride, when returning from the hunt in the forest of night) he meets a shepherd's daughter," &c. (i. 209), and a little further on (i. 211), "This good sister Helen or Little Helen, so careful a guardian of her brother John, ends, when she conceives a passion for the monster, with becoming his perfidious persecutor. (The evening aurora is represented as a friend of the monster of night, who conspires with him against her brother the sun, and whoever observes the sinister aspect often assumed by the reddish sky of evening will find this fiction a very natural one.)" Or (p. 212) "Ivan by the help of his dwarf (or the sun grown small during the night, and perhaps also the moon) accomplishes," &c. Similarly in a Persian tale (i. 125) "A king becomes enamoured of the beauteous Mahrusa, his counsellors tear him from his love, upon which he pines away in solitude and dies. The beautiful girl unites herself to him in the grave (Romeo and Juliet, the evening aurora and the sun die together);" or in a Calmuck tale (p. 129) where six brothers are in love with a beautiful girl: "They fight for her, and, that each may have a part, end by cutting her to pieces. We already know the mythical meaning of this legend." I see here no "mythical meaning" at all, only the traces of what was once a very wide-spread legal custom, that of satisfying a number of creditors or other claimants by giving to each a part of the body of the debtor, or the object in dispute—a custom of which the Roman laws of the Twelve Tables give the earliest proof known to us, while the *Merchant of Venice* is perhaps the latest reminiscence of it preserved. Similarly in the Buddhist legend of Ceylon, Kusa Jatakaya (London, 1871), the beautiful princess Prabavati is claimed by seven kings, and her father, king Madu, to satisfy all the seven and avoid the threatened war, offers to divide his daughter into seven parts and give one to each of the pretenders:

"In seven parts will I divide her body, fresh and fair;
To each of all the seven kings will I despatch a share!
Thus will I from the town avert the woes that now impend!"

In other cases too I am unable to agree with what seems to me a forced interpretation, as when Gubernatis says (i. 225): "It is with the head of the most beautiful of the giant Hymir's oxen fastened to his hook that, in Snorri's *Edda*, the god Thor goes to fish up the immense serpent of Midgard from the bottom of the sea, and destroys it upon the seashore. (This myth, if I am not mistaken,

has the following meaning:—The head of the solar, or lunar, bull is devoured by the monster of night; this same head, tossed about, draws up, towards morning as sun, and towards evening as moon, upon the shore of the sea of night, that is on the eastern mountain, the monster serpent: thus Hanuman, in the *Rāmāyana*, passes over to the opposite shore of the sea, crossing the body of the marine monster, which he causes to burst; thus Indras kills Ahis the serpent upon the mountain.)" Apart from everything else, the words quoted from the *Edda* "and destroys it upon the seashore" are inexact, and convey to the mind a false impression of the proceeding.

This brings me to another point which I will mention here, not to have to return to the ungrateful task of criticizing; the author frequently introduces subjects of which he is either not completely master, or to which he has not devoted the necessary attention; as, for instance, Northern mythology. A few examples will show my meaning. Vol. i. p. 206 we read "Odin too, as Indras and as Bhimas, at three gulps dries up three lakes of mead." In the passage of the *Edda* of Snorri referred to there is no mention of lakes, but of two jars and a kettle (tvö ker ok ein ketil). A little before Gubernatis speaks of a combat between Loki and Thor; in the *Edda* (Gylfag. 46), however, there is mention of a contest between Thor and Utgardloki, but not with Loki his own companion. Again p. 211: "Thus the Scandinavian warrior, Walkiries, has a double aspect, a good and a bad." In the Norse Mythologie or literature there is no mention of a warrior of this name; the Valkyries, as Gubernatis from other passages evidently knows, are something entirely different. i. 222: "The four oxen rush forward and drag Gefion with them into the sea, until they arrive at the land of Seelund." The original text (Gylfag. 1) runs very differently: "Gefion took from Jötunheim four oxen, which she had borne to a Jötun, and yoked them before the plough. Then the plough went so mightily and deep that the land was loosed and the oxen drew it westward towards the sea, till they came to a standstill in a sound. Then Gefion put the land down there, and gave it a name and called it Selund (Seeland)." In consequence of this misquotation what follows in Gubernatis is likewise wrong, viz., "In which it is obvious we have again the Vedic bull with a thousand horns which comes out of the sea, and the bull which carries off the maiden." And why does Gubernatis say of Gefion: "the four oxen her sons (although she is a virgin)"? The above passage scarcely warrants the use of the word. i. 225: "Scandinavian tradition, in the short poem on the dwarf Allwis, offers us the cornucopia in the cup formed of the defence of oxen (i.e. with their horns) in which the god Thor drinks hydromel . . . and this horn moreover, besides serving as a cornucopia, becomes as a golden horn the war trumpet of Odin (the Giallarhorn)." In Alvissmál we find nothing of the sort, and the Giallarhorn belongs to the god Heimdall. i. 290: "In the Turkish stories of Siberia, it is upon an iron-coloured horse that the third brother . . . advances against the demon Ker Iutpa. The hero becomes the excrement of a horse and the horse a crow; the former glues the monster's lower lip to the earth, the latter suspends his upper lip to the sky. In order better to understand this strange myth, we must remember that the name of one of the Valkyries is 'mist,' a word which means excrement and fog. The fog, or frost, or rain, or dew falls to the ground, the solar horse, or the sun, rises in the sky; the monster of night or of clouds is dispersed." This would be a very hazardous interpretation, even supposing that the word *mist* in Old Norse had the meaning *excrement*: but this is simply not the case; Gubernatis has been misled by the German word *mist*, and the whole com-

bination falls to the ground. i. 421 : "Thor kills his he-goats. . . His son, Thialfi, steals the thigh-bone of one of the goats," &c. Thialfi is not the son of Thor, but of the peasant with whom he lodges. ii. 6 : "Thor to whom the hog is sacred." For Thor read Freyr, as Gubernatis says rightly on the next page, "The chariot of Frey is drawn by a hog" (or rather boar). ii. 87 : "The four stags that stay round the tree Yggdrasil in the *Edda* and which come out of the river Hæffing." A river of that name is nowhere mentioned in the *Eddas*. ii. 111 : "In the *Edda* of Saemund it is said that the Alfes are accustomed to call the trees the beautiful arms. We already know the meaning of the boy with the golden hand." The allusion is to Alvíssmál 29 (álfar fagrlíma), where however *fagrlími* means "with beautiful branches." ii. 148 : "The three sons of the Finns go to inhabit the Valley of the Wolf. . . On Christmas Eve the king Helgi meets with a witch who rides upon a wolf having eagles for bridles." For "of the Finns" read "of the King of the Finns" (*Völundarkv.* Introd.) and for "eagles" read "snakes" (*orma*. *Helgakv. Hiörvardss.*, prose to v. 30). The same mistake recurs on p. 191, where we also find : "The beautiful warrior maiden, who coming forth from the battles, rides upon an eagle." Does Gubernatis mean to translate *Vingskornir* (*Fafnism.* 44) "an eagle"? it is generally supposed to be the name of a horse. ii. 390 : "In the *Eddas*, too, the serpent Lokis, who has taken the form of a horse, betrays himself by his feet." Loki nowhere appears as a serpent, though he once takes the form of a horse (*Gylfag.* 42).

These examples will suffice so far as the *Edda* is concerned, but elsewhere too Gubernatis would have done well to be more exact in his quotations, and to have relied less upon second-hand sources (like Aldovrandi, &c.). When he refers to the Vedas he always gives chapter and verse with the greatest care, and we cannot tell why he does not follow the same course always. Of what possible use is a reference to Philostratus, Diodorus, Plutarch, Pollux, Edda, Du Cange, Caesar Heisterbacensis, &c., &c.? they are worthless for controlling the text, and even in the works of the greatest scholars that precaution is not to be dispensed with; we have seen that it was necessary with Gubernatis himself in the *Eddas*, or, again, in the following passages. Vol. i., p. 196, he says : "The German wild huntress of Gueroryssa . . . is represented with a serpent's tail." This is wrong, for in Grimm *Deutsche Myth.*, p. 897, we find only : "At the head of the train rides Gurorysse or Reisarova with her long tail." That Grimm also was mistaken, and that the name of the female spectre was not *Gurorysse* but *Guro Rysserova*, I have shown in Bartsch's *Germania*, xvi. 215. Vol. i. 389 : "In Tzetzas (Tzetzes) I find again the curious notion that Midas sold his own *stercus* out of avarice, that is that he changed it into gold." What Tzetzes, however, has, is that Midas "pinched his belly and sold the food so economized" (*Ἐστένον τὴν γαστέρα δὲ, τὰ βρώματα πιπράσκων*). ii. 27 : "The name of Cyrus's nurse, according to Textor, was Kūna." Who Textor is I am not aware; but in Herodotus i. 110 she is called *Kuvw* (a translation of the Median Σπακώ τὴν γῆν κινά καλέοντο σπάκα Μῆδοι). ii. 32 : "The dog in connection with a man's hand is mentioned in the Latin works of Petrarch, when speaking of Vespasian, who considered as a good omen the incident of a dog bringing a man's hand into the refectory." It would have been better to refer to Suet. Vesp. 5 instead of to Petrarch. ii. 69 : "The mouse that passes over the yarn occurs again in German tradition : 'Gertrudenbuchlein ab : Zwei Mäuschen nagen an einer flachsumwundenen Spindel; eine Spinnerin sitzt am St. Gertrudentag, noch in der Zeit der Zwölften, wo die Geister in Gestalt von Mäusen erscheinen, darf gesponnen

werden.' Rochholtz, ut supra i. 158." This is a mutilated, perfectly unintelligible quotation, which ought to run : "So bildet sie (die heilige Gertrud) der kranische Bauernkalender so wie das so genannte Gertrudenbüchlein ab : Zwei Mäuslein nagen an einer flachsumwundenen Spindel; eine Spinnerin sitzt am Spinnrade und eine Maus läuft den Faden hinauf. Weder am St. Gertrudentag, noch in der Zeit der Zwölften," &c. ii. 1. c. "It is well known how in the Hellenic fable the council of mice resolve, to deliver themselves from the cat, to put a bell round its neck," &c. This fable does not occur in any Greek fabulist or other writer : vide Oesterley on Pauli's *Schimpf und Ernst*, cap. 36; and on Kirchhof's *Wendunmuth*, 7, 105. The Scotch story of Archibald Douglas, nicknamed Bell the Cat, is familiar to every one. ii. 80 : "In the twenty-first Estonian story a silly husband is called by the name of Hare's-foot." Gubernatis has misunderstood this phrase ; for in German *Hasenfuss* (hare's foot) means a coward, and in the story referred to somebody says to a henpecked husband : "You are a coward (Hasenfuss) and don't know how to manage a woman." ii. 153 : "The lion is the steed of the hero Hildebrand." Gubernatis has again misunderstood the passage referred to (in W. Grimm's *Heldenage*) ; Lion (Loewe, Lewe) is the name of Hildebrand's steed. ii. 161 : "The tiger Mantikora, which has in its tail hairs which are darts thrown by it to defend itself, and are spoken of by Ktesias, in Pausanias." For "Pausanias" read "Phot. Bibl.", p. 45b Bekker, where however stings (*κέρτη*), not hairs, are mentioned. ii. 178 : "Whilst *ave*, that is to say good augury, was still the solemn formula of Roman salutation, the Greeks had already turned auguries and auspices into derision." Here Gubernatis has confused the greeting *ave* (imper. of the verb *avere*) with the expression *bona ave* (*εὐօψις*). ii. 211 : "The lady cow of the English has several names in Germany, . . . among others we find those of . . . little cow of women, and little cock of women. German maidens, in fact, in Upland send it to their lovers as a messenger of love, with the following verses," &c. Instead of "little cow" and "little cock of women" it ought to be "little lady cow" (Frauenkühe, Marienkühchen) and "our lady's chick" (unser lieben Frauen Küchlein). Upland, moreover, is not a German but a Swedish province. Mannhardt (*Germ. Mythen*, p. 252) gives the Swedish text of the song as well as the German translation. ii. 275 : "The lark with the crest or with the tuft explains the custom of the Gauls, recorded by Suetonius in the Life of Julius Cæsar, of representing a crested cock upon their helmets." Suetonius (c. 24) has : "Ad legiones, quas a republica accepérat, alias privato sumtu addidit: unam etiam ex Transalpinis conscriptam, vocabulo quoque Gallico : Alauda enim appellabatur." Here mention is made of the name of a single Roman legion, not of a custom of the Gauls. ii. 385 : "It is as a witch that the lizard is killed, in the Greek myth, by Appolines (read Apollo), whence its name of Sauroktonos (read Sauroktonos)." Where did Gubernatis find such a Greek myth? *Sauroktonos* is a name of Apollo, but not of the lizard.

These are the errors and defects which have struck me in reading the present work, and I have instanced them in detail partly to justify the strictures above pronounced, and partly to show that I have gone through the book with the greatest attention. I have therefore the better right to speak to its valuable sides, and can testify to the wide reading which Gubernatis displays in his references and illustrations, and to the remarkable number of conceptions referring to the animal world which he shows either had or may have had a mythological origin—often only to be explained by

the most ancient Indian sources. Many of his views, including some of great acuteness, will doubtless receive further confirmation, if they have not done so already, as is the case with what he says i. 257: "From what we have said thus far, it seems to me that two essential particulars have been made clear—1st, That the worship of the bull and cow was widely spread *even in northern nations*," &c. His proof of this, which is mostly theoretical, has received striking confirmation from facts given in Holmboe's treatise *Om Civaisme i Europa* (in Vid. Selskabets Forhandlinger for 1866, pp. 188-220, Christiania). Even when Gubernatis is mistaken (as we have seen he himself admits was likely to be the case sometimes) his errors will give occasion to further research, and so assist the discovery of the truth. The materials which he has collected are most valuable in their abundance and would have been still more ample but for the restrictions which, as has been said, he imposed on himself. For this reason I refrain from additional remarks of my own on various passages which might have suggested these, and will only instance one or two points in passing. Gubernatis says (i. 48) "A cow (probably a black one), often a black goat, was sometimes also sacrificed in the funeral ceremonies of the Hindoos, as if to augur that, just as the black cow, night, produces the milky humours of the aurora, or is fruitful, so will he who has passed through the kingdom of darkness rise again in the world of light." Without inquiring whether Gubernatis' explanation of the reason why black cows were sacrificed at the funerals of the ancient Hindoos is the correct one, the fact itself is firmly established—vide Mannhardt, *German. Mythen*, p. 734. In Westphalia it is believed that there will be a death in the house of anyone who slaughters a black cow or ox—a superstition which probably arose from the custom of doing so when a death had occurred. (The same writer in *Zeitschrift für Deutsche Mythol.* iv. 420.) This too gives the best explanation of the English superstition mentioned in *Choice Notes from Notes and Queries*, p. 20, and of the Scotch phrase "The black ox has trampled on him," which means, if I am not mistaken, "He (or one of his family) is dead." In German one says of an unlucky person : "The black cow has crushed him," or "The black ox has trampled on him;" amongst the Bohemians and Magyars : "The black cow has trod on his heels." The Kalmuck tale of Siddhi-kür (in Zülg's *Mongol. Märch.*, p. 1. "Die Knotennase"), referred to by Gubernatis (i. 131), tells of the rich and avaricious man whose poor brother goes in despair into the forest to die upon a rock. He is enriched in an unexpected manner, and is envied by the other brother, who goes to the same place in hopes of experiencing the same good fortune, but as he does not hide himself the hobgoblins see him, and believing him to be the man who stole the hammer and the sack, avenge themselves upon him by lengthening his nose and covering it with protuberances. It is interesting to meet with this story again not only in Italy (Vittorio Imbriani's *Novellaja Fiorentina*, Napoli, 1871, No. 14, "I due Gobbi"), but also in Japan (Mitford's *Old Japan*, i. 276, "The Elves and the envious Neighbour"). Gubernatis also (i. 391) takes the following notice from the curious volume *Laus Asini*, printed at Leyden by Elzevir : "Si quis graviter a scorpione ictus id in aurem insusurret asino, ex tempore curetur." Elliot (*Races of the N. W. Provinces of India*, i. 260) likewise mentions this European superstition, and adds, "In India it is also believed that if a person is bitten by a scorpion, he may be cured by the following ceremony:—A young male buffalo calf is selected, in preference to a donkey, as being a purer animal, and into its ear is whispered the following incantation (which probably has no meaning at all, at least only faint glimmerings of sense can be detected in it). . . .

When this jargon has been duly uttered by the messenger, he returns to the bitten patient, and is sure to find him duly recovered." It is not less remarkable that in a Russian tale (Gubern. i. 408) Thereshicha says that he was originally the stump of a tree which his father and mother, being childless, had picked up in the forest and wrapped up and rocked in a cradle till he was born. This corresponds to a passage in the Finnish epic *Kalevala* (Schieffner's translation, p. 131), where an unfortunate maiden wishes she had never been born, and uses the expressions that follow: "Would that thou, poor mother, that bore and suckled me, hadst given away thy milk and swathed a log and washed a little stone instead of washing thy daughter and wrapping up thy darling to come to such fulness of sorrow," &c. We find here an echo of the widely spread custom of supplying the place of a lost or wished-for child by a doll or a gourd, on which cf. Tylor's *Early History of Mankind*, second ed., p. 110. Hence perhaps may be explained the Hindoo idea, according to which all children come out of the globular gourd (Rochholz, *Glaube und Brauch*, &c., i. 135) and the Wallachian story (Schott, No. 23) of Trandafiru, who is a man by day and a gourd by night. The story of the tail-fisher to which Gubernatis alludes (ii. 113), saying, "In a popular Norwegian story the fox makes the bear catch fish with his tail, which is frozen in the water," is likewise to be met with in numerous countries: Tylor l. c. p. 364. Shortly before (ii. 112) Gubernatis mentions a Russian tale in which the peasant cheats his companion the bear twice: when they sow turnips together the peasant reserves for himself whatever grows underground, and leaves to the bear whatever comes out of the earth; when they sow wheat, the bear, thinking to be very knowing, takes for his own part what grows under, and gives to the peasant what grows above the ground. The peasant is about to be devoured by the bear, when the fox comes to the rescue. This tale, like the preceding one, is also met with in Norway (Asbjörnsen, *Ny Samling*, Christiania, 1871, No. 74, 3) and in Germany (Grimm, No. 189), where the devil is the person cheated. To Grimm's references (vol. iii.) may be added a Caucasian tale (*Magazin für die Litter. des Auslands*, 1834, No. 134) where also the devil takes the place of the bear; and the old Spanish *Conde Lucanor*, c. 41, where instead of the devil vice (el mal) appears and is cheated by virtue (el bien) about the division of a field of turnips. The author of *Conde Lucanor* is known to have derived a considerable portion of his collection of tales from Arabic sources, and thus it happens that we find the incident in question in one of Rückert's poems (p. 75) from a similar source. Another Russian tale (Gubern. ii. 357), in which the crab beats the fox in a race by a trick, recurs in various forms in ancient Greece (Æsop, ed. Koraës, No. 287, "Χελώνη καὶ Λαγώς"), in Armenia (Vartan, No. 8), in Arabia (Lokman, No. 20), in Siam (Bastian in Benfey's Orient and Occid. iii. 497), and in Ceylon (Steele's *Kusa Fatakaya*, p. 257). But I will not forestall the additions which Gubernatis will doubtless make to his work in a second edition. The examples already given will show sufficiently the copiousness of the materials offered in the *Zoological Mythology*, which enlarge the horizon of mythology and general folklore in every direction, and are of interest even for the general reader; so that Gubernatis has put both the learned and the literary classes in his debt—a debt materially augmented by the excellent index which accompanies his work.

FELIX LIEBRECHT.

The Intellectual Life. Hamerton. Macmillan and Co. 1873.
It is difficult to give an adequate description of a book whose value consists less in its substance than in its spirit;

good conversation is refreshing and stimulating, and yet it is often puzzling to say what it comes to. Mr. Hamerton's book is like the best conversation : we feel when we are reading that we are breathing a clearer air, which is bracing without being keen ; we feel that he throws light upon topics about which few of us find it comes natural to think quietly and coherently. For most of us the plan of our lives consists of as many of the corollaries of two or three absolute (and incompatible) theories as we can find room for between the prejudices which experience has happened to leave to us and the inferences from our organization and our circumstances which experience has forced upon us. Anybody who can help us to see where we are going, and make deliberate progress through such a chaos, does us an essential service, and this is exactly what Mr. Hamerton does for us. Our feverish agitations subside in the presence of such unfailing patient cheerfulness, such ready recognition of limits, such adroit perception of issues ; it is impossible to be carried away by phrases when we are protected by such an alert instinct for delicate precision of statement, such transparent candour, and by the exquisite refinement of temperance which we are inclined to think the greatest merit an essayist like Mr. Hamerton can possess. The only guarantee against some degree of triviality is to repress the temptation to make earnestness and emphasis do instead of originality until it ceases to be felt ; and an author who can practise such self-denial is rewarded by a perennial flow of the observations that are too accurate to be obvious and of disinterested distinctions and of well-chosen illustration.

The book consists of letters never sent through the post to correspondents who are not imaginary, dealing with such topics as the Physical and Moral Basis of the Intellectual Life, Intellectual Hygienes, Education, the Power of Time, Custom and Tradition, Aristocracy and Democracy, and the like. There are more than seventy letters, so it is obviously impossible to give the description of these correspondents, who will now receive so many letters besides those intended specially for them, though the situations which Mr. Hamerton chooses to discuss are always suggestive, and give the discussion an air of actuality which it never loses. The subject in hand is examined with an attentive ingenuity which makes sure of every landmark which can guide the inquirer, who always is carried safely up to the point of not being perplexed by the subject, and often, though this is less important, up to the point of understanding it ; for what we really want in most cases for practical guidance is not to see very far into a matter, but to see our way well out of it. For instance, the hints on forming and keeping to habits which suit the individual, in the letter to a student in uncertain health, are much more indisputably true and come much nearer to exhausting the subject than the reply "to a moralist who had said that there was a want of moral fibre in the intellectual, especially in poets and artists ;" yet for practical purposes enough has been said when it has been shown that literary and artistic work requires moral courage and as much purity as is implied in self-control. It would have been superfluous to have tried to make a better case for the moralist than he had made for himself by pointing out that morality has other factors besides strenuous self-control. If a man has cultivated his intellect successfully that is a strong presumption that his self-control is decidedly above the average ; it is no presumption at all that his sense of obligation is stronger, nor again that his ideal instincts find their indulgence rather in reverence than in self-complacency. As a matter of experience it might be plausibly maintained that intellectual men are prone to emancipate themselves from the duties which practical men acknowledge ; it would not be paradoxical to suspect that it

is only very high knowledge indeed which tends to encourage reverence or aspiration after what is unattainable here, and that it only produces this effect upon minds of a peculiar quality. But without insisting upon these doubtful points it was possible to preach a perfectly candid sermon on the benefits of discipline and the necessity of drudgery. This characteristic candour is most conspicuous in the beautiful letters to a student in the first ardour of intellectual ambition, to an intellectual man who desired an outlet for his energies, and to a friend of a man of high culture who produced nothing. After the rapturous motto on the title page from Giordano Bruno in praise of philosophy, " Pro qua incurrisse non piget labores, dolores, exilium, quia laborando profeci, exulando didici, quia inveni in brevi labore diuturnam requiem, in levi dolore immensum gaudium, in angusto exilio patriam amplissimam," it is startling to come upon admissions that ennui is the common fate of intellectual workers and that hard work is no specific against it, that many highly cultivated minds are naturally and incurably sterile, and that it is very much a matter of accident whether a cultivated mind which is not sterile finds any outlet for its energies except what the author felicitously describes as intellectual charities. Here again we note the tact with which the writer keeps the discussion to what can be acted on. He has not allowed himself to be tempted into the obvious generalizations that our desires are normally in excess of our faculties, that we are naturally capable of much more than it is physically possible that we should actually achieve, and that, limited as our available powers are, they are in excess of our opportunities, especially of the opportunities which attract us. If he had been tempted the book would have been depressing, and the fatal question,—

" Were it not better done as others use—
To sport with Amaryllis in the shade,
Or with the tangles of Necera's hair ? "

would have intruded itself importunately, for Mr. Hamerton is not in a position to silence it with reference to fame or even " the perfect witness of all-judging Jove." Nor is his own answer that faculties torment us when they exist and are not exercised entirely adequate ; there is a very wide margin between the point at which a faculty is impaired by disease or becomes clamorous for employment and that at which it performs the most it can. But there is no necessity for raising questions which are unanswerable, and Mr. Hamerton's book raises the reader into an atmosphere where they seem otiose.

Readers who do not need or do not relish teaching which is as elevated as it can be without being transcendental will find much to interest them in the chapters on education, especially in the details which the author's experience suggests as to the limits and possibilities of polyglot culture. He tells an amusing story of a son of his own who learnt and unlearned Gælic, English, and Provençal. We are inclined to think too much stress is laid upon the case of a French student of English literature who read Claribel as follows :—

" At ev ze bittle bommess
Azvart ze zeket lon
At none ze veild be ommees
Aboot ze most edston
At meedneeg ze mon commess
An lokez down alon
Ere songg ze lins veet svelleveets
Ze clirvoivire—ed mavi dvelless
Ze fledgling srost lispeess
Ze slombroos vad ootvelless
Ze babblang ronnel creepess
Ze olov grot replecess
Vere Claribel lovlee—ess."

This is intended to prove the worthlessness of modern classical scholarship, and certainly it does awaken uncom-

fortable suspicions that our taste may be as much at sea as our pronunciation certainly is. But it is to be remembered that classical scholars are not so isolated like the French student ; they support and control each other ; our appreciation of ancient literature and ancient poetry does not differ as widely from ancient criticism and ancient feeling as his appreciation of English authors and English poets did ; even our pronunciation, absurd as it is, has a fixity and refinement which we may hope is not without a definite and not very remote relation to the music of Cicero and Virgil. The author is on surer ground in the letter to a friend who recommended him to learn this thing and that, where he inculcates by many charming analogies from cookery and other sources the important though neglected truth "that the mere addition of knowledge may be good for us or bad for us ; and that whether it will be good or bad is usually a more obscure problem than the enthusiasm of educators will allow." This is all the more remarkable because the writer has no preference for specialists—indeed his natural predilections seem to lie rather in the other direction ; his favourites are models of universal attainment like Humboldt and Goethe, or universal accomplishment like Julian Fane. The letters on women and marriage are full of delicate and beautiful observations : perhaps the best where all are good is a suggestion that married people should renew themselves for each other as an author renews himself for his public. The letter to a friend who seemed to take credit to himself, intellectually, from the nature of his religious belief is upon the whole the best of those on custom and tradition. The main position of it is that such self-complacency is misplaced whatever its ground, since the intellectual life is open to Sandemanians, Ultramontanes, and Atheists. This makes it more remarkable that other letters are pervaded by an assumption that for those who lead it the intellectual life is supreme. The assumption may seem to be self-evident ; but in fact we see that the various activities of the man of business and of the muscular Christian, and even of the moral enthusiast, upon the whole confine themselves spontaneously within the elastic limits of general consent. Even the intellectual life itself has not been less intense at periods when it accepted these limits than it is now when it rejects them : Aristotle would have been as startled as Aquinas at the paradoxes of the modern advocates of truth at any price. G. A. SIMCOX.

LITERARY NOTES.

In the *Contemporary Review* (June 1) Mr. Herbert Spencer continues his papers on "The Study of Sociology :" the twelfth is devoted to "the theological bias" as a disturbing force in the development of a natural social morality. "Red Cotton Nightcap Country," by A. Orr, is an intelligent and sympathetic analysis of Mr. Browning's work : the reviewer's object is to interpret rather than to criticise, but the poet's frequent need of an interpreter is ingeniously accounted for ; Mr. Browning aims at saying and thinking at length what most people are content dimly to see or feel, and as what is addressed to the intelligence can only be apprehended thereby, his audience is limited to those who are able to follow very original conceptions. In the same number Mr. Goldwin Smith answers "Mr. Greg on Culpable Luxury" with more urbanity and not less point than usual, pleading guilty to a *p penchant* for the ethics of Christianity, and representing that moral responsibility may coexist with a scientific view of the laws of wealth.

The *Cornhill* has a lively and instructive paper on "The French (periodical) Press, from its foundation to the death of Mazarin." It would be curious to know whether Renaudot, the founder of the *Gazette de France*, who "not only inaugurated in France an Estate, Professional and Servants' Agency, as well as an office for private sales and exchanges, but further laid the basis of the Poste Restante, Parcels Delivery, Post-office Directory, Tourist's Guide and Money Order Office ;

besides affording an outlet to troubled spirits like those who correspond through the agony column of the *Times*"—was at all indebted for the idea of these modern inventions to the father of Montaigne, who had divined the power of advertisement a century earlier. In the same number are some charmingly Heinesque lines on "New Rome," by Mr. Matthew Arnold.

The (American) *Catholic World* for May offers a new explanation of the epithet "young Abraham Cupid," used by Mercutio, and turned into "Adam" by most commentators except Mr. Dyce, who finding the same word in other passages plainly used as the name of a colour, wishes to read "auburn" wherever it occurs. The writer argues that "Abraham-men" in *Lear* is a term for impostors as well as a colour ; that "Abraham's balm" is one name for the "kind of withy or willow commonly called *agnus castus* in England, the hemp tree." Wigs were made of flax and hemp, and to some extent from the similar coloured fibres of the "Abraham's balm" tree, and used by rogues for disguise, and by a somewhat forced ingenuity it is proposed to understand by "young Abraham Cupid" a tow-wigged or yellow headed young impostor.

The "Co-education" question, or rather the expediency of admitting women to Harvard College, is being discussed with some animation in Boston. Those opposed to the innovation state that at Oberlin and in most Western colleges it has been found that men and girls do not really follow the same course of study when they have the opportunity, from which it would seem to follow that Harvard might oblige the agitators without danger by simply insisting on strict conformity to the present college course from all students indiscriminately.

The *Journal des Débats* has recently published some letters of Mirabeau's which give curious confirmation to the little credited statements of Etienne Dumont in his "Souvenirs" to the effect that he himself and three of his countrymen (Genevese), Reybaz, Clavière and Duroveray, had a large share in the composition of Mirabeau's most famous speeches. The letters are from Mirabeau to Reybaz, very confidential in tone, and actually apologizing for slight changes made in delivery or printing from Reybaz's manuscript.

The *Athenaeum* (May 31) mentions dubiously the authorship of "An analysis of the influence of natural religion on the temporal happiness of mankind, by Philip Beauchamp." We believe that there is no doubt that the pamphlet, originally published in 1822, and reprinted for private circulation in 1866, was by the late Mr. Grote. Originality was scarcely to be looked for in so juvenile a production, but Godwin's views are put forward in it with much cleverness and ironical moderation. "Natural religion" is defined, of course quite arbitrarily, as a belief in an Omnipotent Being who will administer posthumous pains and pleasures to mankind. Belief in a future life does not by itself, the writer proceeds to argue, afford a directive rule of conduct. Attempts to infer such rule from the character of the Deity, of which nothing is known but that he is omnipotent and incomprehensible, lead, as the unknown is always terrible, to his being conceived as a capricious despot and addressed with servile praise. Pious works are not identical or coextensive with those prescribed by utility, or the motive for their performance would subsist independently of religion. Duty towards God is avowedly out of relation to the good of other men, and if it affects our happiness it must do so by diminishing it, since otherwise legislation on the subject would have been unnecessary. Threats of future punishment do not enlighten the judgment as to what is good, and human legislation can punish overt evil acts, while an hypocritical zeal for God's service ends in intolerance and other passions detrimental to the general interest. The utilitarianism, it will be seen, is decidedly crude, and the author did not succeed in weakening the claim of religion to respect on his own principles as giving a cheap sanction to positive police regulations.

The "Poésies inédites de Lamartine," just published, include some early attempts at tragedy, the plan of the great religious epic, of which *Jocelyn* and *La Chute d'un ange* were only intended to be episodes, and a fragment *Le Chevalier*, which is in the poet's best descriptive style.

Art and Archaeology.

Early Christian Numismatics, and other Antiquarian Tracts. C. W. King, M.A. London : Bell and Daldy. 1873.

MR. KING has been long in the field as an authority on ancient gem engraving. His popularity among lovers of this branch of art has been earned by several works of which we are free to confess that they display a very extensive knowledge of his subject. Of the two elements, however, required for thorough work in this direction of research, an intimate acquaintance with classical writers and a familiarity with modern discoveries and criticisms bearing upon ancient monuments of all kinds, it strikes us that Mr. King is decidedly superior in the former at the cost of the latter.

These remarks may not appear to be pertinent to a book labelled *Early Christian Numismatics*. But to our regret the book in question is not what its outside professes to be. For it contains, out of 302 pages in all, the following chapters which can neither be described as Christian nor numismatical : (1) "On an intaglio representing the clepsydra used at races in the Circus Maximus," p. 113-122; (2) "Signet of Q. Cornelius Lupus," p. 123-149; (3) "Seal set with an intaglio of the Laccoon," p. 151-171; (4) "The gem-portraits of Commodus and Marcia," p. 265-274; (5) "On an antique paste cameo, found at Stanwix, near Carlisle," p. 275-286. Of the other chapters some are Christian and some numismatical. The first (p. 1-93) alone combines both features, and probably for no other reason than its being first was chosen to supply the main title; the words "and other antiquarian tracts," which are added on the title-page, are not calculated to produce the impression that they apply to by far the greater part of the book.

A better opportunity could hardly be desired of airing an acquaintance with recent criticism in matters of ancient art, than in treating of the intaglio (p. 151-171), which appears to be an ancient copy of the well-known marble group of Laocoön. With regard to the marble group, a difference of opinion as to its date arose between Winckelmann and Lessing, the latter believing it to have been made in the time of Titus, and the former being convinced that it was the work of artists of the Rhodian school at a much earlier period. These opinions being based on a perfectly ambiguous passage of Pliny and for the rest on individual taste, it is not surprising that the supporters of the one never seem to succeed in shaking the faith of their opponents and that our principal authorities are still ranged with pretty equal strength under one or the other opinion. Winckelmann has been followed by O. Müller, Welcker, and latterly Brunn and Overbeck, while on Lessing's side have appeared Visconti, Thiersch, Braun, Stephani, and more recently Friederichs and Bötticher. If he had counted the supporters of the two theories from their published opinions on the subject, Mr. King could not, we think, have obtained a just foundation for his remark that "the majority of critics at present" refer the Laocoön group to a much earlier period than that of Titus, "perhaps to the school of Lysippus."

Mr. King may be right in his theory of this group having been originally intended to decorate the pediment of a temple of Apollo, though owing to some confusion in the process his argument appears to lead only to this that bronze could not well have been employed for such a purpose. "The group of the Laocoön would be with equal propriety chosen to fill the tympanum of a temple of Phœbus as that of Niobe and her children, teaching another moral, to decorate one consecrated to his goddess sister." As far as the moral lesson is concerned, certainly. But surely a repulsive subject like that of the Laocoön ought never to be compared on any other grounds with that of the Niobides. The sight of

physical pain may have been regarded with less horror than we suppose by the Greeks, but neither "the frequency with which the death of Opheltes by the bite of a snake is reproduced on gems," nor the statue, apparently of Philoctetes, by Pythagoras of Rhegium, *claudicantem cuius ulceris dolorem sentire etiam spectantes videntur*, nor even the poor representations of Prometheus which occasionally occur, are sufficient to convince us that a nation in whose legends the destruction of monsters by favourite heroes plays so important a part could have ever encouraged the execution of sculptures like the Laocoön group, which could only be fully appreciated by tastes fostered at gladiatorial displays. "Curves and spirals," it is true, "had a special charm for the Grecian eye," and it is not denied that the curves and spirals of the group in question are of a Greek character; for it is expressly stated to have been executed jointly by three artists of unmistakably Greek names. But it is contended on the other hand that these artists lived at a time when the true spirit of Greek art had departed, and that, therefore, the cruel subject in which their love of spirals and curves is displayed need not be reckoned among the subjects more or less familiar to the Greek masters of the earlier time when Greece was independent and its great artists all competitors for the applause only of the best of their countrymen.

The representation of the Laocoön which Mr. King now publishes occurs on the private seal of Thomas Colyns, Prior of Tywardreth from A.D. 1507 to 1539, and differs from the marble group as it now stands in the action of the right hand of the father, besides in some minor details. "He appears on the wax attempting with his right arm *bent* to tear away the head of the serpent from his throat into which it has already fastened its fangs, whilst at the same time he vainly averts his face from its attack. Now in the marble the action is totally different: Laocoön *extends* the same arm at full length and forces away from him merely a fold of the serpent's body, the head of which appears much lower down.

But the discrepancy is easily explained. This portion of the marble was wanting upon its discovery and was immediately restored—by M. Angelo as the story, of course, goes—consistently with his own false conception of the original attitude. Nevertheless a small projection is still visible on the head of Laocoön sufficient to have guided a more sagacious restorer to a better understanding of his duty, by suggesting the former adhesion of the serpent's bite in that particular place." This discrepancy assures Mr. King that the gem had been copied previous to the restoration of the marble, that is, previous to the Italian revival, and, as there was no time between the Italian revival and the date of the execution of the marble in which the gem could well have been copied, it is highly probable that both works are nearly contemporary.

ALEXANDER S. MURRAY.

THE FRENCH PLAYS.—MADEMOISELLE DESCLEE.

THE enterprise of Messrs. Valnay and Pitron, exercised in the face of many vexatious restraints, has enabled us all within the last month to see Mademoiselle Desclée in two or three great characters. No lady within living memory has sprung more suddenly into the front rank of actresses, and no one has relied more absolutely upon laborious art for the attainment of success with that public of the Gymnase Theatre which is fortunately as critical as it is large. In London, her first appearance was in the character of *Frou-Frou*, in the play of that name. Those who saw her in it from the beginning to the end, probably came away with the conviction that they had seen a great actress—an artist of sufficient sweep of intellect to conceive of a character as a whole from the written drama, and to work out that conception in detail, instead of trying to build up out of details an

effective and surprising *ensemble*. In seeing Mlle. Desclée on the stage you do distinctly each time see a new character ; but the bias and temperament of the actress naturally determine the amount of success with which each character is presented, and I am not sure that so powerful an impression is produced by her *Frou-Frou* as by her much shorter performance in *Une Visite de Noces*—a piece which has not been acted at all in London. For the *Visite de Noces* calls for the display of qualities in which Mlle. Desclée is strongest ; and calls exclusively for these. *Frou-Frou*, on the other hand, demands some gifts which are not in the possession of this accomplished actress—demands in the first act a romping girl's brightness and lightheartedness, and in the last a quite peculiar gentleness of pathos. Thus, the last act would have been better played by Miss Kate Terry, and has actually been better played—or at all events more touchingly—in the opinion of fine judges, by Mlle. Léonide Leblanc. And the first act would gain quite as distinctly by the sparkling freshness and mutinous humour of a younger comédienne—Miss Nellie Bromley. But then between these two there are three acts which seem the especial property of Mlle. Desclée ; and in these her exhibition now of restless impatience—gradually growing irritation—now of a calm and satisfied sense of mastery, now of scorn, now of passionate upbraiding, and now of vehement appeal, is of course absolutely unrivalled. What I may perhaps be permitted to speak of as the comparative failure of the final act is due, not wholly, but in part, to an over-use of that monotonous utterance of which Mlle. Desclée was the first to discover the value. Remarkable effects, especially in the expression of a scorn that is much restrained, may be produced by this monotonous utterance. Word fails after word with the persistency and equality of thunder-drops at the beginning of a storm. The face is Sphinx-like. No power is proved, but any amount is indicated. But this strange method fails of its effect in a death-scene, like that of *Frou-Frou* ; which (laudably free as it is from all common faults of exaggeration and want of self-control) would be rendered infinitely more touching by one happily found change either of face or voice. It seems ungrateful to say this—and to be at pains to say it—when one easily remembers so very much that is admirable in the performance ; but the truth is that Mlle. Desclée's artistic gifts and acquirements are so incontestable and so many that one is in some danger of forgetting that among them must not be reckoned the want of flexibility in gentleness,—of graduation in pathos.

A good deal might be said if this were the place in which to discuss the literary merit or moral teaching of *Les Idées de Mme. Aubray*, and of *Diane de Lys*—works of the early and of the middle period of the present Dumas's career ; but of Mlle. Desclée's performance in these plays there is little to be said, apart from that which is said already, unless one begins to particularize with a criticism of detail, useless now that it is all over. But to see her in two or three parts—whatever parts these be—confirms the impression that Mlle. Desclée is one of the very few actresses with artistic instinct and cultivation to think out a character definitely before beginning to embody it, and then so to embody it that not the cleverness of this or that individual touch—the inspiration of this or that great moment—shall remain with you, but rather the life-likeness of the whole. But as one specimen of really great acting, it is fair to mention the extraordinary outburst of moral elevation and happy relief with which Diane welcomes what is unexpectedly good in the thought and expression of her associates ; and as another one may call attention to the subtlety and suggestiveness of every look, gesture, and tone when Diane tells Paul Aubry that her husband has returned, and that his return is nothing whatever to her. There have been actresses with greater, or at all events more pleasing, means than Mlle. Desclée, but no actress with the like means has produced a greater result.

FREDERICK WEDMORE.

NOTES ON ART.

The *Gazette des Beaux-Arts* for June contains : 1. a long article on the *Salon* by M. Georges Lafenestre illustrated by several inferior woodcuts. The sculpture of the *Salon* receives more attention from M. Lafenestre than does that generally of our Royal Academy exhibition from the critics, and three out

of the five illustrations are devoted to it. 2. "Antique beds" considered especially as a form of sepulchre, by M. L. Henzey, is continued and finished. Among the illustrations is a curious Etruscan urn in the form of a festal bed on which the deceased is depicted taking part in his own funeral banquet. This curious custom prevailed it would seem with several nations. A jolly-looking king of Assyria is represented lying on his bed-tomb and partaking of refreshment with his wife who sits on a chair by his side. 3. "Léopold Robert d'après sa correspondance inédite." This is the fifth article on the subject by M. Charles Clément. 4. The Brussels exhibition is reviewed by M. René Menard. A good etching by Courtry of "The Smoker" by Terburg, another by Hedouin of "La Jeune Fille à la Rose" by Goya, and a third by Greux of a White Horse by Wouverman are given as illustrations. 5. In "Paradoxes," second article by M. Edmond Bonaffe, "Le Comfort" is attacked as not being a French and therefore not a desirable thing. 6. "L'Oeuvre d'Eugène Delacroix" is an appreciative article by M. Louis Gonse. 7. "Bibliographie des ouvrages publiés en France et à l'Étranger sur les Beaux-Arts et la Curiosité pendant le premier semestre de l'année 1873," by M. Paul Chéron, of the *Bibliothèque Nationale*.

The *Zeitschrift für bildende Kunst* is principally remarkable this month for its frontispiece—a masterly etching by W. Unger of one of Rembrandt's portraits (called that of "the Bürgermeister Six") in the Cassel Gallery. This was published some time ago in Unger's *Gallerie zu Cassel*. It had then a somewhat warmer tone, but the reproduction is very good. An article entitled "Streifzüge im Elsasz" by Dr. Alfred Wolftman gives an interesting description of the street and church architecture of some of the old towns in Alsace. Several illustrations of rich Gothic buildings are given in it. A fourth article on the collection of Sir Richard Wallace in the Bethnal Green Museum by G. Gutenberg, criticising especially the works of Rubens and his school ; a second article on the activity in building—*Bauhätigkeit*—now manifested in Vienna, and an article on Niccolo Alunno and the school of Foligno, complete the number.

A sale of a large and good collection of modern paintings chiefly of the English school, belonging to the late Mr. John Hargreaves, of Broad Oak, took place last week at Messrs. Christie, Manson, & Woods rooms. Landseer's "Pensioners," "Pope making love to Lady Mary Wortley Montague," "Gathering the Offerings" by John Philip, "Christ in the Garden of Gethsemane" by the elder Linnell, and many other paintings by English artists of equal note were sold.

Great discontent has prevailed among French artists this year on account of the limitation of the space usually allotted to them in the Palais des Champs-Elysées. Living artists have been obliged to make room for dead ones, in pursuance of the Government scheme of the Musée des Copies. This has been manifestly hard on a large number of artists who have every right to exhibit in the Salon, and whose chance of selling their works depends perhaps on their so doing, but who on account of want of room have this year found themselves excluded.

Some reparation has, however, been offered to these offended artists by a spacious room having been allotted to them, capable of holding 800 pictures, situated behind the Palais des Champs-Elysées. The painters at once formed a commission to examine the pictures claiming admission, and the exhibition is by this time open.

The total sum realised by the sale by Messrs. Christie, Manson, and Woods of the drawings of David Cox that had remained in the possession of his son was £25,324.

In spite of the limitation of space, and consequently excluded artists, the catalogue of the Salon enumerates 2,142 exhibited works. This is 541 more than in our Academy. There are 1,556 exhibitors, divided into 1,064 painters, 309 sculptors, 41 architects, and 142 engravers and lithographers. Of these women artists amount to 168, and artists of various foreign nations to 163.

A reduced replica of the great picture of Sardanapalus by Delacroix, now exhibiting at the Society of French Artists in Bond-street, was bought by M. Prosper Crabbe at the Wilson sale for 70,000 francs.

According to the *Messager du Midi*, a Montpellier paper quoted in the *Moniteur des Arts*, an important and interesting autograph of Molière has just been discovered among the archives of Montpellier. This is almost as great a literary event in France as the discovery of a Shakespeare autograph would be with us. The smallest line, or even a signature, by the great author of *Le Misanthrope* is extremely rare.

The directors of the Cologne Museum have brought out of their dépôt a picture which had hitherto been looked upon as valueless. It was in a bad state from neglect and dirt, and was considered as an all but worthless work by an unknown hand. The Pellenkofer process was however applied, and the picture, a Pietà, was then discovered to be an interesting work of Abraham Janssens (1567-1631).

At the sale of the pictures of the Marquis de la Rocheb... which took place a short time since in Paris a painting of Weymouth Bay by Constable was bought by an Englishman, Mr. J. Wilson, for 56,000 francs. The French Government, it is said, bid up to 50,000 francs for this picture, and it is now asserted that Mr. Wilson, "in a fit of generous remorse," intends presenting his acquisition to the Louvre. It is time certainly, as even Frenchmen are beginning to think, that the English school should be represented in the National Museum of France. Hitherto a small painting by Bonington, who may almost be reckoned as belonging to the French school, and two repudiated Gainsboroughs, have been the only works by English artists in the Louvre.

If, however, as is said, Mr. Wilson will not only give the "Bay of Weymouth," but likewise a sketch of Salisbury Cathedral by the same artist, to the Louvre, that collection will be suddenly enriched by three Constables, for the Director, not knowing probably of Mr. Wilson's generous intention, purchased another work by Constable—"The Cottage"—at the same sale for 24,000 francs. Almost all the English pictures in the Rocheb... collection sold well. A portrait by Reynolds, however, of Sir George Yonge, which had been previously engraved in the *Gazette des Beaux-Arts*, only fetched the small sum of 6,000 francs.

The celebrated Hüsgen collection of Albrecht Dürer's engravings and woodcuts has recently been acquired by the Vienna Academy of Fine Arts. This collection, which was originally formed by Herr Hüsgen with a view to writing his Catalogue Raisonné of Dürer's engravings that was published in 1778, contains some very perfect impressions of the finest of Dürer's prints; especially a St. Jerome and a Little Cardinal are mentioned as extremely choice examples. There are as many as 160 wood engravings, and two or three of the scientific treatises, as well as the copper engravings. But besides these there is another treasure that goes with the Hüsgen collection—a veritable lock of the great German artist's hair, whose history can be traced almost up to the time when it was cut off the head of the dead master. It originally belonged to one of Dürer's pupils, but has been transmitted through various hands until it finally came, with the Hüsgen collection, into the possession of a painter of Frankfort, who has sold it with the rest to the Vienna Academy.

The June number of the *Portfolio* is enriched by a fine and large etching by M. W. Ridley of a London dock scene—"The Orange Wharf, London Bridge." In some respects this etching resembles those of similar scenes in Gustave Doré's "London," but it has none of the glamour that the French artist delights to throw over his representations of ordinary life. It is quite real. An etching called "The Ballad," by J. D. Watson, is a wonderful piece of work for a first attempt, as we are told it is, of the artist. Sidney Colvin continues his appreciative criticism of painters "From Rigaud to Reynolds."

A lithograph of Sir Joshua's "Cornelia" (Lady Cockburn and her children) illustrates his text.

Adolf Tidemand, of Düsseldorf, is exhibiting a large painting of a Norwegian wedding procession. The bridal party on their way home from church are obliged to cross a mountain stream. The bride and bridegroom, who are on horseback, are enabled to do this with tolerable dignity, but the rest of the merry party take off their shoes and stockings and prepare in various fashions to wade the stream. The landscape in which the scene is set is very effective.

Mr. Charles Critchett, formerly assistant secretary of the Society of Arts, is a candidate for the secretaryship of the Royal Academy, now vacant.

New Publications.

- BIRCH. Ancient Pottery. Murray.
 BULTEAU. Petite monographie de la cathédrale de Chartres, et des églises de la même ville. Cambrai : Corion.
 CUSANS. Inventory of Furniture and Ornaments remaining in all the parish churches of Hertfordshire in the last year of the reign of Edward VI. Parker.
 DE PULIGA. Madame de Sévigné, her Correspondents and Contemporaries. Tinsley.
 DOELL, J. Die Sammlung Cesnola. Leipzig : Bosz.
 DUFEU. Découverte de l'âge et de la véritable destination des quatre pyramides de Gizeh. Paris : Morel.
 FIORELLI. Gli Scavi di Pompei dal 1861 al 1872. Napoli : Detken e Rocholl.
 HOUGHTON, Lord. Monographs Personal and Social. Murray.
 LAMARTINE. Correspondance, publiée par Mme. Valentine de Lamartine. Paris : Furne, Jouvet, & Cie.
 LONGMAN. The Three Cathedrals dedicated to St. Paul in London. Longmans.
 MARION. Rondeaux et vers d'amour par Jehan Marion, poète Nivernais du xv^e Siècle. Paris : Willem.
 MORLEY. A first sketch of English Literature. Cassell, Petter, & Galpin.
 RALSTON. Russian Folk Tales. Smith, Elder, & Co.
 SAND, George. Impressions et Souvenirs. Paris : Lévy.
 SOLLY, W. Neal. Memoir of the Life of David Cox. Chapman and Hall.
 STRAUSS, D. F. The Old Faith and the New. Translated by Mathilde Blind. Asher.
 SYMONDS. Studies of Greek Poets. Smith, Elder, & Co.

Science.

Genera Plantarum ad Exemplaria imprimis in herbariis Kewensibus servata definita; auctoriibus G. Bentham et J. D. Hooker. Vol. II., pars I. London : L. Reeve and Co. ; Williams and Norgate. 1873.

THIS large instalment (pp. 534) of the second volume of the *Genera Plantarum* follows as promptly as could be expected upon the first, considering the great amount of work which both authors have upon their hands, the needless trouble and worry which one of them has had to endure in guarding the interests of the noble establishment under his charge, and considering also that the new part comprises—in fact mainly consists of—two such vast natural orders as the *Rubiaceae* and the *Compositae*. There remain no orders so large and, with one possible exception, none so difficult. We may now hope, and fairly expect, to see the work go on to completion at such a rate that it may actually represent the botany (or rather the Phanerogamous botany) of this generation, the end being reached before the earlier portions need recasting—a precious advantage, which in so large an enterprise and in these days of plenteous harvest and few labourers cannot often be secured.

It is safe to say that there are no other two living botanists who combine so many qualifications for such an

undertaking as this—who have (collectively speaking) seen so much living vegetation under diverse climes, have scrutinized so many dried specimens, and dealt with so many of the practical problems of systematic botany. Certainly no such couple can be found, capable of working together to a harmonious result, whose conclusions would carry so high a probability of being well founded.

Complete uniformity of treatment by two hands is not to be expected. It is likely that if the *Rubiaceae* and the *Compositae* had been elaborated by the same author the number of the genera of the former would not have increased from about 240 (in Endlicher) to nearly 340, and those of the latter diminished below the sum of the last previous enumeration. Yet this is by no means certain. Some orders furnish more decisive characters for genera than others, and are less disposed to isolate them in single species. The ratio of genera of single known species to those with more than one seems to vary between one to 2 (*Saxifragaceae*), or one to 24 (*Cruciferae*) to one to 32, which holds for *Leguminosae* and *Compositae*. Those of *Rubiaceae* are intermediate, viz., one to 28. So that monotypic genera play a conspicuous part in the system of nature; and the adoption of very comprehensive views respecting the limitation of genera only moderately lessens their very notable proportion. One may be confident that in the *Compositae* and the *Leguminosae* of the present work such genera are reduced to their lowest practicable numbers.

In a work like this, which must immediately pass into the hands of all systematic botanists, there is no need to explain its plan and characteristics, nor even to state how any particular order is treated. Yet a word or two respecting two such important orders as *Rubiaceae* and *Compositae* may not be amiss. The former are disposed in three (instead of the ordinary two) series, a small middle one being intercalated for the convenient disposition of the few genera with geminate ovules; these series are divided into twenty-five tribes, the characters of which are mainly taken from the aestivation of the corolla, and the nature, number, and when solitary the direction, of the ovules. These characters had been tentatively tried before (first by Mr. Bentham), and they appear to answer the purpose well. In *Compositae* the principal reforms of the order as left by the elder De Candolle who gave the later years of his life to its study, are first, the omission of that convenient primary division into *Tubuliflorae*, *Labiatae*, and *Liguliflorae*, the latter at least differing from the other tribes of *Compositae* so much more widely than they do from each other that one regrets the change. Second, the tribes—thus ranking as the most comprehensive divisions—are increased from eight to thirteen (notwithstanding the inevitable union of De Candolle's two *Labiatae* tribes into one), and the tribal characters are most clearly and skilfully worked out, much use being made of the anther as well as of the style. The exclusion of the *Pectideae* from the *Vernoniaceae*, and of the *Tussilagineae* from the *Eupatoriaceae*, was of course to be looked for; the constitution of a large tribe, *Inuloideae*, under which are brought together the *Tarchonanthae* and the *Gnaphalineae* of De Candolle, is one of the greatest improvements. So is the separation of the *Calendulaceae* from the *Cynareae*. Thirdly, the genera, which were almost nine hundred in De Candolle's time, and must have much exceeded a thousand, notwithstanding many consolidations, are here repressed with a strong hand, being reduced to less than 800, including a considerable number of new ones. This is done upon clear and intelligible principles, applied by a judgment uncommonly well balanced, but seemingly inclined now and then to excess in the way of consolidation.

At least we have the impression that it is here and there rather overdone.

Finally, instead of expatiating upon the merits of the work, which are sure to be recognized, one may more usefully and not ungraciously point out some small slips or faults. One or two relating to the structure of the fruit in certain *Caprifoliaceae* are partially corrected in the Errata (as respects *Symporicarpos*, but not in the more obvious case of *Triosteum*). Both would have been avoided, and the structure of the ovule more definitely stated if some early observations by Dr. Hooker upon the latter in this order had been kept in mind.

In *Rubiaceae*, the phrase "Flores quoad organa sexualia di-v. tri-morphi," appended to the ordinal character, much too vaguely and insufficiently refers to the dimorphism in question to serve the whole purpose. If the differences in the length or insertion of stamens, and reciprocally in the length of the style, are not essential generic characters, they should be kept in view in the generic description, or else it may fail of its end. For instance, the character assigned to *Mitchella* is not true of any one individual in the genus. Whenever such individual has "stamina fauci corollae inserta; anthereae exsertae," it has not "ramis styli exsertis," and so conversely. The same applies to *Houstonia*, *Anotis*, &c. It is not enough to say that the filaments may be short or rather long, included or exserted, unless it be stated that both occur in the same species, and that the style (of which no variation is mentioned) is reciprocally long or short. This state of things should also be kept in view in cases like that of *Heterophyllaea*, in which the exserted style and included anthers of the only known plant indicate the high probability of a counterpart to which the present generic character would not apply.

So also, but in a different way, the character of *Posoqueria* would be much improved by a statement that the anthers connive and are lightly united, that two of the filaments are strongly and two lightly curved, and all in such elastic tension that when a slight external force disturbs the nicely adjusted equilibrium of the anthers, and the force of the liberated filaments projects the pollen, the bowed filaments recurve while the straight one is inflexed and covers for a day or two the orifice of the corolla. These are no less matters of structure than important in the way of function.

As to *Pinckneya*, the brief erratum still leaves somewhat to be said, and its removal from the *Cinchoneae* may be challenged. The ovules it is true are horizontal or nearly so; and the seeds (which may well be termed "majuscula," since they are commonly five lines long, and the pod only six or eight) are fixed by the edge. So they are in two or three recognized Cinchoneous genera, while at least in one (*Bikkia*) they are said to be horizontal. As to the wing no Cinchoneous seeds have this better developed.

The genus *Relbunium* would be very convenient, no doubt, by leaving two characters to distinguish *Galium* from *Rubia*; but some Californian species completely invalidate it. So, also, the separation of *Valerianella* from *Fedia* is very well in Europe, but in North America are some intermediate species which fairly forbid the separation.

It is doubtless intended that this second volume shall contain the remainder of the Gamopetalous orders. We may hope that botanists will not have very long to wait for its completion.

ASA GRAY.

Notes on Scientific Work.

Anthropology.

Discoveries at Marzabotto.—The publication entitled *Mémoires pour l'histoire primitive et naturelle de l'homme*, 3 ann., 2 str., 1872, p. 251,

gives some illustrations and a short account of a series of objects found in the ancient cemetery of Marzabotto, consisting principally of bronze mirrors, discs, fibulae, some of them of the Gaulic type and others resembling in form those found at Hallstadt, articles in gold, and bronze statuettes. Of the latter two types are to be distinguished, the first representing the human form with the meagreness and stiffness of a primitive art, and yet with a considerable idea of sweetness in the expression of the face. The high pointed cap, *tutulus*, is sufficient proof that figures of this kind are the production of native Etruscan workmen. The second type, on the contrary, here represented by a group of Mars and Venus (fig. 21) and a statuette of a negro (fig. 22), is obviously the result of close study of Greek models from the period just before the culmination of Greek sculpture. The shortness of the proportions and the roundness of the limbs both of Mars and the negro seem to suggest, from their resemblance in these respects to the sculptured metopes from the temple at Selinus in Sicily, that the Etruscans had caught the current of Greek influence brought by the Doric colonists to Sicily and the south of Italy. A group very similar to that of Mars and Venus is to be seen in the British Museum. Such figures were employed to surmount either candelabra or cistae, in the present case candelabra, as may be proved by the pedestals to which they are still attached. Among the other objects found were three fragments of pottery inscribed (1) κακούπιτον ἐποεότεν, (2) Ακίνη, and (3) Τύρυν, not *Murn*, which can only be obtained by reading the letters in a direction not only contrary to what is usual, but also contrary to the direction of the letter R, which is the only one of them that cannot be read either way. The tombs in which these objects were all found are of two kinds, the first being formed of four slabs or blocks of stone with a heavy cover either pointed and ribbed like a roof of a house, or flat and surmounted by a sort of pillar, while the second are in the shape of wells (fig. 28, 29) constructed of small pointed flints without cement, and varying in depth from 2 to 10 metres. The diameter of the mouth varies from 0.3 to 0.8 of a metre. The contents consist of three or more skeletons, a large urn, vases of clay and bronze rings, pieces of tiles and sometimes of painted vases, and bones of domesticated animals. Excepting two others found at Certosa tombs of this kind have not hitherto been discovered in Italy. In France, on the other hand, they frequently occur. A third class of tombs at Marzabotto are formed of chests made of large tiles with a cover and capable of holding skeletons entire.

Costanti, the tattooed Sultane.—It is much to be regretted that Costanti, after yielding so far as to go to Berlin for the purpose of being more closely examined by Virchow and Bastian, should have been overtaken at the last moment by an illness which he made the pretext of returning at once to Vienna. There is little doubt but that the real cause of his sudden departure was the dread of being subjected to a fresh examination as to the circumstances under which he was tattooed, subject of which his previous accounts are in a high degree conflicting and unsatisfactory. Fortunately we have photographs of him as well as a detailed description in the *Wiener Medicinischen Wochenschrift*, 1872, No. 2, and an engraving on a large scale in Hebra's *Atlas der Hautkrankheiten*. From these it appears that the tattooing covers the entire body with the exception of the nose and such parts as the soles of the feet. The colours are mainly dark blue with an occasional touch of red, while the design, embracing figures of animals, flowers, weapons, and other objects with written characters in some places, particularly in the palm of the hand, is carefully carried out. The skin, instead of suffering in the process, is quite soft and delicate to the touch. Its feeling is unchanged, and in point of sensitiveness to temperature if anything increased. According to his account the instrument employed was metal cylinder, pointed and split at the point like a pen, with a heavy metal handle. This cylinder being charged with coloured liquid was then placed against the skin, and resting on the left forefinger of the operator the point was driven with a steady movement under the skin. With three hours of this daily the whole work was completed in three months, and that it should have occupied so long a period is not to be wondered at when we consider the elaborate and truly artistic character of the design. All doubts as to the tattooing having been done in Burmah are now at an end through the assurance of Bastian that the letters which occur in it are Burmese. Costanti had called them Arabic. Though it is possible that he may have been subjected to the process as a proper punishment for a mercenary soldier captured in war, it is more likely that he had himself so carefully tattooed only for the ulterior object of gain. See *Zeitschrift für Ethnologie*, 1872, pt. vi. p. 201.

Clay Vase from Alba Longa.—Virchow having had brought to his notice one of those prehistoric vases of black clay which were found in 1817 under a layer of peperino at Alba Longa, now Marino, and of which the British Museum possesses several specimens, describes it in the *Zeitschrift für Ethnologie*, 1872, pt. vi. p. 221, as having been neither formed by the aid of a potter's wheel nor baked in a kiln. It is altogether without ornament, and in colour and appearance closely resembles the old Etruscan vases.

The Amber of Bologna.—Prof. Capellini has examined the ornaments of amber found in the ancient cemetery of Certosa, and is con-

vinced that the amber employed in these cases is precisely of the same nature as that still found in the neighbourhood of Bologna. He is therefore surprised that if, as he supposes, the amber of this district was used to a considerable extent in ancient times in the manufacture of personal ornaments and such like no mention should be made of it by writers like Strabo and Theophrastus who took pains to collect facts of this kind. The same, however, applies to the amber still found in the plain of Catania in Sicily, and yet there is no doubt of the latter having been extensively used by early artists in Italy. The Sicilian amber and that of the north of Italy are very like each other.

Geography.

Central Australia.—Intelligence has reached England of a new journey to Central Australia which is perhaps the most important, as regards geographical results, of any that has been undertaken since Macdouall Stuart's march across the continent in 1861-62, and which quite subverts preconceived notions respecting the possibility of rendering that region permanently habitable.

The exploring party was despatched from Victoria by the exertions of Baron von Mueller. Mr. Ernest Giles, in company with Mr. Carmichael and an attendant, started from Chambers pillar, an almost central point of Australia on the line of the great overland telegraph, and explored the very heart of the continent for upwards of three hundred miles to the westward in various directions. The general features of the country were found to be the same as those observed by Stuart further to the east in the same latitude, scrub and sand-hills, alternating with grassy flats, mulga and oak trees often in abundance, ranges of hills with here and there creeks of fresh water. The animals of the district are wild ducks, pigeons, emus, and kangaroos. Occasional tribes of natives were likewise met with. Two important discoveries were made, first, the existence of a considerable mountain range of about 2,000 feet in relative elevation, or perhaps 4,000 feet above the sea level, extending westward in the line of the Mac Donnell Range discovered by Stuart; and secondly, of a great salt lake which forms a complete obstacle to further progress. The lake, as sketched in Mr. Giles' map terminating indefinitely to the westward, has a length of about 150 miles with an average width of ten miles, and must require a very considerable rainfall for its supply. In describing a flock of pelicans which he noticed, Mr. Giles remarks: "They came from the N.W., and indeed all the aquatic birds that I have seen on the wing come and go in that direction. Though there are plenty of small fish in the Finke, a creek followed on the journey, I do not think that they are large enough for mobs of pelicans to exist upon, for the largest I have seen was no bigger than a sardine; I should imagine that these birds had come from some larger waters in the tropics." The lake is named "Amadeus;" its waters are briny salt, and no fresh water whatever was to be found near its shores. Several specimens of old metamorphic rocks which probably indicate the presence of auriferous beds have been brought back; their existence in Central Australia was hitherto unknown.

Mr. Giles is about to start on a new journey to the south of Lake Amadeus, in the hope of penetrating still further into the unknown western interior.

Chemistry.

Pinacolin Alcohol.—A new tertiary alcohol bearing this name has been prepared by Friedel and Silva (*Bull. Soc. Chim.*, 19, 193) by the action of sodium on pinacolin and distillation of the washed product. The greater portion passes over at 120°.5 and consists of a clear liquid possessing the smell of camphor. This is the new alcohol which is isomeric with hexylc alcohol; from the manner of its formation it is a dimethyl-isopropyl-carbinol. When cooled in ice it solidifies in crystals resembling those of carbolic acid. The iodide, $C_6H_{13}I$, is not very stable and when distilled with water breaks up into hexylene, boiling at 70°, and hydroiodic acid. In its behaviour at low temperatures as well as in the characters of the iodide the new alcohol resembles trimethylcarbinol. The chloride, which boils at 112°.5—114°.5, is isomeric with the body obtained by Schorlemmer by the action of chlorine on diisopropyl, which however has a boiling point of 120°. Though in many features pinacolin alcohol resembles Wurtz's amylenic hydrate it bears a temperature of 250° without undergoing decomposition. By treatment with potassium bichromate and sulphuric acid it is converted into pinacolin which boils at 106°. This is an important observation, for the belief has hitherto been held that a tertiary alcohol cannot yield on oxidation a product containing the same number of carbon atoms. By the oxidation of pinacolin the authors have obtained an acid which melts at 26°, possesses to a slight degree the odour of butyric acid, and has the composition of valerianic acid but which widely differs from that substance in boiling point and other properties. After the distillation mentioned above by which the alcohol was isolated the retort contained a small amount of a compound that crystallised on cooling and proved to be

a pinacone of pinacolin, $2 C_6 H_{12} O + 2 H = C_{12} H_{20} O_2$.—Berthelot proposes to arrange acids in three classes: 1. acids of simple function like acetic acid; 2. acids of complex function like lactic acid or salicylic acid; and 3. incomplete acids, to which the phenols as well as the alcohols belong. The acid of Friedel and Silva comes probably in the last category. These acids exhibit differences in the amount of heat which they develop during combination with an alkali. Acetic acid, when treated with soda, gives off 1330° , no matter how much the alkali is in excess. Lactic or salicylic acid with one equivalent of alkali evolves the same quantity of heat as acetic acid, but by the addition of a second equivalent of alkali a further, far smaller amount of heat is set free, it being in the case of salicylic acid about 300° . By great dilution of the alkaline solution, however, the second evolution of heat is not observed. Phenol gives off about 740° and alcohol causes no development of heat when the alkaline solution is very dilute.

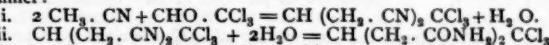
Artificial Formation of Fluor Spar.—Scheerer and Drachsel have recently succeeded (*Jour. Prakt. Chem.*, 1873, No. 2, 63) in forming crystals of calcium fluoride. Some attempts to obtain them by fusing the fluoride with mixtures of the chlorides of calcium, potassium, and sodium were not attended with any great success; occasional octahedra were found, but cubes or combinations of cubes and octahedra on no occasion. By heating calcium silicofluoride in an aqueous solution of calcium chloride to 250° for 10 hours a great quantity of octahedra were produced, an edge on one of which measured 0.08 mm. An aqueous solution of calcium fluoride yielded no crystals on evaporation at ordinary temperatures; when however the fluoride is heated with water slightly acidulated with hydrochloric acid for several hours at 240° under a pressure of 32 atmospheres of steam well developed octahedra are formed in abundance. Barium fluoride crystallised from its aqueous solution in cubes 0.02 in length. This fluoride when digested with hydrochloric acid in the manner above described furnished prismatic crystals of a compound of barium fluoride and chloride; when nitric acid was used cubes accompanied by prisms were produced. The experiments of these observers go to show that a slow action, in conjunction with a low temperature, favours the formation of fluor spar in cubes, while rapid action at a high temperature causes the fluoride to crystallise in octahedra. Barium sulphate deposited from a solution of the chloride heated with an excess of sulphuric acid to the same high temperature formed crystals considerably larger than those obtained by precipitation in the ordinary manner. By the action of calcium sulphate on barium fluoride at a high temperature well defined crystals containing both acids and bases separate, and it was only by a long sustained heating that individual crystals of fluor spar and barium sulphate were recognised. The authors are of opinion that the "Baryto-fluete of Lime" of Smithson may after all prove to be a mineral species and not a mere mixture as many mineralogists assert.

The Evolution of Oxygen by Plants.—In a paper communicated to the Academy of Sciences of Vienna Prof. Boehm (*Ber. Deut. Chem. Gesell. Berlin*, 1873, 1008, 550) shows that the carbonic acid absorbed by plants is not, as has hitherto been supposed, taken up directly by the cells containing chlorophyll, but that the organs must first become covered with an atmosphere of carbonic acid in order to perform their respective function. Prof. Boehm has been led to this conclusion by the following facts: 1. Leaves of *Juglans* dipped in water containing carbonic acid and exposed to sunlight give off but very little gas if the little bubbles of gas forming on them are removed immediately they make their appearance. 2. The evolution of gas ceases if the coefficient of absorption of water for carbonic acid be augmented either by a reduction of temperature or by pressure, although under these conditions gaseous carbonic acid is still decomposed. 3. The evolution of gas likewise ceases if the leaves before the experiment are injected with water and the conditions necessary for the formation of bubbles on their surface greatly limited. Injected leaves of land plants, on the other hand, continue to develop in an atmosphere containing carbonic acid a considerable amount of oxygen.

In some experiments on the decomposition of carbonic acid by green leaves of land plants in a mixture of carbonic acid and hydrogen he observed that the quantity of oxygen produced was always greater than the volume of carbonic acid taken up; in some cases the excess in volume equalled that of the leaf itself. To trace the origin of this excess of gas the air enclosed in the tissues of living plants called for examination. Contrary to expectation the amount of gas extracted from leaves and twigs proved to be enormous and consisted almost entirely of carbonic acid. Living tissues of land plants, in fact, when placed in an atmosphere free of oxygen commence at once to give off carbonic acid, which they continue to do as long as they are living, and in the case of green leaves at a temperature of $20^{\circ} C$ this is about 48 hours. *Ceteris paribus* the amount of gas disengaged varies greatly with the temperature. This phenomenon is in every way analogous to that observed in the yeast of beer especially as regards what is termed its spontaneous fermentation. Organisms shut off from free oxygen derive the force necessary for carrying on the vital processes from internal combustion (the "innere Verbrennung" of Adolf Meyer). If green leaves of land plants be placed in hydrogen the volume of the gas is but slightly increased

and on analysis it is found to contain some oxygen. Mere traces of that gas will enable plants containing chlorophyll to carry on their normal respiration in sunlight. Green leaves which have been placed in the dark for three or four hours at a temperature of $20^{\circ} C$ in an atmosphere of hydrogen and then exposed will often evolve one or two cub. cent. of oxygen. If the time be prolonged to twelve or fifteen hours they produce carbonic acid only on exposure; they have lost the power of taking the oxygen required for their normal respiration out of carbonic acid. Atmospheric air in which leaves of *Juglans* were exposed to sunlight underwent no change in volume or composition at 30° ; when however the temperature was raised to 40° or lowered to 10° more carbonic acid was produced than was decomposed by the process of respiration.

Chloral and Acetonitrile.—Hübner and Schreiber some time since in a paper on the atomic weight of fumaric and maleic acid communicated the results of some preliminary experiments on the action of acetonitrile on chloral, and gave an incorrect formula to the crystalline substance, the product of the reaction. They have now ascertained that this body, which resembles the one obtained by Baeyer by the action of chloral on benzol and sulphuric acid, is produced in the following manner:



It is, therefore, the amide of a bibasic chlorinated acid. Hübner (*Chem. Centralblatt*, 1873, No. 13, 201) believes that the compound formed by Meyer and Dulk from acetic anhydride and chloral is an isoacidic acid, the acid in fact related to this amide.

The Basicity and Constitution of Periodic Acid.—Thomsen has determined the basicity of this acid by the method which he employed in the case of other acids, by neutralization (*Ber. Deut. Chem. Gesell. Berlin*, 1873, No. 6, 2). A maximum evolution of heat was observed when two molecules of potash act on one of acid. The chief results given in his paper are as follow:—The molecule of periodic acid is represented by the formula $H_4 I_2 O_9 . 3 H_2 O$; it is tetrabasic and decatomic. The normal salts have the form $R'_4 I_2 O_9 . 3 H_2 O$ or $R''_4 I_2 O_9 . 3 H_2 O$. The three molecules of water are not in close combination and may be removed wholly or in part by the application of heat. The heat of neutralization in the case of the normal potassium salt is $4 \times 1330^{\circ}$. There are three classes of basic salts and the following formulas represent one normal salt of each series: $Pb_3 I_2 O_{10} . 2 H_2 O$; $Zn_4 I_2 O_{11} . H_2 O$; and $Ba_5 I_2 O_{12}$. Basic potassium and sodium salts do not apparently exist in the solid state or are readily decomposed by water. When acids act on the normal salts an acid salt of the formula $R_2 I_2 O_8$ is obtained. This decomposition of the molecule is attended by a considerable absorption of heat, about 16000° , so that the two molecules of potash required for the formation of the acid salt develop only 10300° while the normal amount of heat is about 26000° .

Basarow, who has published a paper on the subject in the same part of the *Berichte*, does not agree with Thomsen in doubling the formula $H_5 I O_6$ and considers periodic acid to be a combination of iodine with one atom of oxygen and five hydroxyl which would give it the structural formula $(HO)_5 I O$. Of the five groups of hydroxyl two only play the part of acid hydroxyl, the remaining three of alcohol hydroxyl; and the acid therefore is pentatomic and dibasic. The following formula expresses according to Basarow's view the different functions of the hydroxyl groups: $(HO)_2 I O (OH)_3$.

Metallic Phosphides.—The compounds of phosphorus with zinc and cadmium have been studied by E. Renault (*Compt. rend.* 76, 283). By passing phosphorus vapour over zinc or the oxide of the metal at a red heat there is formed in addition to the compound already known, $Zn_3 P_2$, fine yellow, brown or red needles which by further heating become of a bright red colour and have the composition $Zn P_2$. It is but slightly attacked by acids. Cadmium under the same conditions forms two phosphides, one with a metallic lustre giving the formula $Cd_3 P_2$, the other consisting of carmine and often indigo-coloured crystalline plates of the compound $Cd_2 P$. Both substances are easily decomposed by acids and give off phosphuretted hydrogen, the latter body likewise forming hypophosphorous acid as well as a yellow product which contains phosphorus.

Tridymite in Quartz.—In the *Mitt. aus dem min. Museum der Univ. Prag* Dr. K. Vrba announces the discovery of crystals of the new form of silica in a specimen of quartz the locality of which is unknown. They occur in characteristic groups of little six-sided tables on which he recognised in addition to the pinacoid and the prism planes a pyramidal face forming a truncation of them both.

The Salt Beds of Stassfurt.—C. Bischoff in the *Zeitschrift für ges. Naturwissenschaften, Halle*, Band 40, describes some recent borings made between Stassfurt and Schöneberg, which have been driven to a depth of 1,000 feet. During the operations a bed 54 feet in thickness and consisting for the most part of sylvine was struck.

Writing from Pau (*Chem. Centralblatt*, 1873, No. 13, 204) F. A. Hartzen sends a further contribution to the chemical history of plants. He has noticed how materially the seasons affect the amount of certain

complex chemical compounds which they secrete. In autumn he sought in vain for chrysophyll in *Ulmus* and *Mercurialis perennis* though they yielded a considerable amount during the spring. Chlorophyll also exhibits a change and readily undergoes decomposition in autumn, and this too before the leaves have begun to lose colour. *Isopyrum thalictroides* when in blossom contains two alkaloids, one amorphous, the other crystalline. In autumn when the leaves have faded the root no longer produces a trace of the crystalline body while the amorphous alkaloid is in excess. He remarks that the fact of the yield of an alkaloid undergoing a qualitative as well as a quantitative change during the development of a plant is of great technical importance, especially in the case of plants which produce several alkaloids. It would be an interesting question to ascertain at which period of the year *Papaver Somniferum* contains most morphia and when most narcine and codeine.

Dr. Geinitz, the director of the Royal Mineralogical Museum in Dresden, has just published a small pamphlet describing the collection under his care and tracing its history from the time of Georg Agricola, when a *Museum für Kunst und Natur* was first founded in 1553, down to the present day. The present classification of the minerals was adopted in 1857 when the museum was committed to the charge of Prof. Geinitz. The specimens are arranged in two collections: one a general collection, the other "eine vaterländische Mineralien-Sammlung." In the former the non-metallic minerals are classified according to the acid, the metallic minerals according to the metal they contain, the whole being included in five great groups: geoliths, metals, metalloids, anthracoids, and haloliths. A short definition is given of the characters of each family and a slight history of the more remarkable specimens. The list of mineralogical and geological papers issued by the museum since 1836 is a long one.

The second volume of the *Centième Anniversaire de Fondation (1772-1872)* of the Royal Academy of Belgium, which has recently been issued, contains a very valuable "Rapport Séculaire" by M. de Koninck on the chemical researches which have appeared in the publications of the Academy during the century.

New Publications.

- ASTIER, M. Essai sur le mouvement des projectiles oblongs. Paris: Berger-Levrault.
- BENTHAM, G. and HOOKER, J. D. Genera Plantarum. Vol. II. Part I. Williams & Norgate.
- BINCKHORST van den BINCKHORST, J. T. van. Monographie des gastéropodes et des céphalopodes de la craie supérieure du Luxembourg. Bruxelles: Muquardt.
- DEBAT, L. Essai sur la constitution de la matière et l'essence des forces dans l'ordre physique. Baillièvre.
- DE LA ROSA, G. Biblioteca Peruana. O las Fuentes de la Etnografía, Historia, Geografía, y Literatura del Peru. 1^a Serie.—Etnografía. Trübner.
- DELFORTRE, M. E. et FISCHER, P. Note sur quelques ossements de cétacés, de Léognan (Gironde). Bordeaux: Coderc et Degréaux.
- DÉPOTS lacustres du vallon de Sancats. Bordeaux: Coderc et Degréaux.
- DES MOULINS, C. Fragments Zoologiques. I. Questions obscures relatives à l'Hydractinia echinata Flem. et à l'Alcyonium domuncula Lamk., tous deux logeurs de pagures. II. Notes spécifiques sur le genre polia d'Orbigny (Solénacées.) Bordeaux: Coderc et Degréau.
- FOSTER, J. W. Prehistoric Races of the United States of America. Trübner.
- GAUDIN, M. A. L'Architecture du Monde des Atomes dévoilant la structure des composés chimiques et leur crystallogénie. Paris: Gauthier-Villars.
- HEHN V. Das Salz. Eine kulturhistorische Studie. Berlin: Bornträger.
- HERNANDEZ, J. M. P. Compendio de la Geografía del Estado de Michoacan de Ocampo. Mexico.
- HEWITT, R. Coffee: its History, Cultivation, and Uses. Trübner.
- JOURDAN, P. Flore de Vichy. Avec un préface de George Sand. Baillièvre.
- KAYSER, E. Die Fauna des Rotheisensteins von Brilon in Westfalen. Berlin.
- KNOP, A. Studien ueber Stoffwandlungen im Mineralreiche, besonders in Kalk- und Amphiboloid-Gesteinen. Leipzig.
- LINCER, M. Des granules magnétiques qu'on observe dans quelques dépôts du bassin de la Gironde. Bordeaux: Coderc et Degréaux.
- LISTING, J. B. Ueber unsere jetzige Kenntniss der Gestalt und Grösse der Erde. Göttingen: Dieterich.
- LOWNE, B. W. The Philosophy of Evolution. Van Voorst.
- MÜLLER, F. Allgemeine Ethnographie. Wien: Hölder.
- PIKE, N. Sub-tropical Rambles in the Land of the Aphanapteryx. Sampson Low.
- ROBERT, E. Silex taillés en Islande. Paris: Walder.
- SCHMIDT, F. Ueber die Petrefacten der Kreideformation von der Insel Sachalin. St. Petersburg.

SCHÜEBELER, F. C. Die Pflanzenwelt Norwegens. Ein Beitrag zur Natur- und Culturgeschichte Nord-Europas. Christiania: Univ. Press.

SEDWICK, A. Synopsis of the Classification of the British Palaeozoic Rocks. Cambridge: Whareham.

SELWYN, A. R. C. Geological Survey of Canada. Report of Progress for 1871-72. Montreal.

STEIN, S. T. Die Trichinenkrankheit und deren Auftreten zu Frankfurt a. M. im Januar, 1873. Frankfurt: Auffarth.

THIERSCH, A. Optische Täuschungen auf dem Gebiete der Architektur. Berlin: Ernst und Korn.

VAMBÉRY, H. Centralasien und die englisch-russische Grenzfrage. Leipzig: Brockhaus.

VRBA, K. Mittheilungen aus dem mineralogischen Museum der Universität Prag. Prag.

WAGNER, M. The Darwinian Theory and the Law of the Migration of Organisms. Translated by J. L. Laird. Stanford.

WEINHOLD, P. Ueber die Messung hoher Temperaturen. Chemnitz.

WILLKOMM, M. Atlas der Botanik. Leipzig: Brockhaus.

WOLDRICH, J. Eine Opferstätte der Urzeit bei Pulkau in Niederösterreich. Wien.

WOOD, H. C. Contributions to the History of the Fresh Water Algae of North America. New York.

ZOOLOGICAL Record Association. List of Scientific Journals. Third Issue. Van Voorst.

History.

Debates in the House of Commons in 1625. Edited by S. R. Gardiner (Camden Society).

WHEN Charles I.'s first Parliament was summoned the King and the House of Commons appeared to be on the best of terms. When it was dissolved the great quarrel between them had fairly commenced. All historians have tried to investigate the reasons for this change, but hitherto we have not had the materials necessary to the inquiry. There is a large *lacuna* in the Journals, and the reports given are poor and scanty. Mr. Forster's Life of Sir John Eliot first made us acquainted with the debates, and now Mr. Gardiner prints a tolerably full summary of them from a MS. in the library of Sir Rainald Knightley at Fawsley. He has added an independent and even fuller report of the Oxford session from the Harleian MS. 5007, and some news letters; while the State Paper Office supplies a defence of the government, and a report from Pym on Montague's case. The key to the whole question is to be found in the parliamentary history of the previous year. The Commons, having regard to the limited resources of the nation, wished to limit the proposed war to an attack on Spain and Spanish commerce by sea, while giving some aid to the Dutch, and placing England and Ireland in a state of defence. In short, they were guided by what had been the policy of Elizabeth. But James I. and his son and Buckingham wished to form a great continental alliance to recover the Palatinate, and to throw the main weight of the war upon Germany. At last a compromise was made: the Commons' plan was adopted for the present, while the King was to mature his plan and lay it before Parliament in the autumn. Under Buckingham's guidance this engagement was broken; Parliament was not summoned in the autumn, the marriage of Charles with Henrietta Maria was arranged upon terms to which Charles had assured the Commons he would never submit, and arrangements were made for subsidising Mansfeld and the King of Denmark, and plans entertained for sending ships to attack Genoa and an army to besiege Dunkirk. This policy was far wilder than that which the Commons had rejected, as being beyond the means of the kingdom. When the fact of this fundamental difference between the King and the House antecedently to the opening of the session is once clear, all that followed is clear also. It was only bit by bit that all Charles' plans and subsidisings became known, he having most unaccountably made no

general statement at all to the Parliament. There was no need for him to have gone to war when he found that the Commons would not vote the enormous sums required to carry out his plan, for war was not yet declared, and the Commons were for some time in doubt whether the war was meant by the King to be against Spain or against the Emperor. This fact is kept out of sight by Hume, who says, "when the war which they themselves had so earnestly solicited was at last commenced, the immediate desertion of their sovereign could not but seem very unaccountable." But the war was not yet declared, and it was not the war the Commons had wished when inflamed by Charles' and Buckingham's false narrative of what had taken place in Spain (Hume gently says "this narrative deserves great blame"), but a very different war, and one against a different sovereign. Mr. Gardiner has well brought out the essential opposition of view between the King and the Parliament. We trust that having now accumulated materials enough in his late publications he will give us the continuation of his History of James I., which he has impliedly promised us for some time. We note one small erratum. Should not *sue*, p. 182, line 8, be *noe*?

C. W. BOASE.

Storm's Critical Examination into the Historical Writings of Snorre Sturlasson. [S. Sturlassons Historieskrivning. En kritisk Undersøgelse af Gustav Storm.] Copenhagen: 1873.

In the spring of 1870 the Danish Royal Society (*det kongelige Danske Videnskabsselskab*) propounded, as the subject of a prize essay, four critical questions concerning the character and origin of the great sagas attributed to Snorre, with a view to bringing out all attainable evidence with regard to the authorship of the *Heimskringla* and its value as an historical storehouse. Early in 1872 it was decided that the gold medal of the society should be awarded to Mr. Storm for the exhaustive and most learned treatise that now lies before us, and it is impossible to suppose that it could have been more thoroughly deserved. His investigations have been laborious and unflinching, and he presents us here with a digest of the whole, given in a style rarefied to the extreme of conciseness and terse almost to baldness. The work is not at all adapted to attract even the cultivated public, but to lay before scholars a clear and statistical view of what has been effected in the criticism of early Scandinavian history.

The first section of the treatise is occupied with the evidences that exist to show that Snorre wrote the *Heimskringla* in its present condition, and the author upholds his conviction of the inherent unity of that work in opposition to the contrary arguments of Professor Maurer. The second section is more elaborate and laboured. It consists of a patient consideration of the works of all the predecessors and followers of Snorre, and of the sources from whence he drew his information. The result of these exceedingly difficult investigations seems to be the certainty that already in Snorre's youth, and perhaps before, sagas had sprung up in the West, North, and East of Iceland; that Snorre knew at all events some of these, and that so they could influence his style; that many excellent writers were contemporaneous with Snorre, and that even after his time saga-writing was carried on in an historical spirit in the West and North; that in the next generation after Snorre there arose in the South Province a great writer, the author of the *Njálssaga*, who knew the previous literature from the other provinces; but that, lastly, soon after, in the close of the century, saga-writing began to be driven out by the influence of foreign romance, which brought historical sobriety into discredit, and introduced a legendary element into historical composition. The criticism of the various early historians is extremely full of interest.

The general reader is pleased to come, in the next division, to the personality of Snorre himself. A wonderful charm rests around the story of the first great modern author, with his wandering life, romantic fame, and tragical ending. Mr. Storm collects all the particulars of Snorre's early life and studies. Born in 1178, he came to Odde when he was only three years old to be brought up by the learned Jon Löftsson, who died while he was still a youth. It is more than probable that his education in Jon Löftsson's house was conducive to the development of poetical genius, the seeds of which seem to have existed in several members of the Sturlunge family. In 1212 he wrote a poem on Håkon Jarl, and when he was in Norway in 1218 he pronounced a series of verses before Skule Jarl, the burden of which, still preserved, proves him to have been even then a master-skald. Snorre's visit to Norway immensely quickened his literary powers; four years after, in 1222, he had finished his *Edda*. He was received in Norway as no Icelander had been before him, and this voyage turned his thoughts to the subject of his greatest work, the history of the Norse kings. In 1219 Snorre visited Sweden; sailing round the whole coast of Norway from Nidaros (Trondhjem) to Oslo (Christiania) he penetrated as far as Götaland. This Swedish journey doubtless influenced the writing of the *Ynglingasaga*, which was finished about 1219. Mr. Storm follows the life of Snorre no further than this point. He then dwells with much acumen on the peculiar excellencies of his author's historical manner, and points out that the great advance that Snorre made over his predecessors, the authors of *Morkinskinna* and *Fagrskinna*, consisted in this, that he gave not a series of biographies, but a continuous outline of the whole history of the Norwegian dynasties.

The remainder of the volume is occupied with more purely technical matters, such as the collation of MSS. No trouble has been spared to make the work exhaustive in itself and serviceable for students. The arrangement of the divisions and subdivisions of the criticism cannot be too highly praised, and there is a handy index.

EDMUND W. GOSSE.

Konunga Sögur. Eller Sagaer om Sverri og hans efterfolgere udgivne af C. R. Unger, Christiania, 1870, 1871 (two fasciculi, to be continued).

THE lives of King Sverri and his grandson, King Hakon, are preserved in various MSS., some containing those sagas in full, some in a more or less abridged form. In this collection it is intended to print the chief vellums containing the best texts of the lives of these two kings. The beginning has now been made by publishing the abridgment contained in the Icelandic vellum, Eirspennil, or *Bræsen-Clasp*,—thus called by Torfæus from its binding,—a vellum of the end of the thirteenth century, and now in the Arne-Magn. Collection, under No. 47 fol.; the first part of this MS. contains the lives of King Harold Hardradi and his successor, in a recension of the same family as the Kringla. The Eirspennil, or a transcript thereof, has thus also furnished the text to the third volume of the folio edition of *Heimskringla* of 1777 (see a former article); but here we are only concerned with the Sverri's saga and those of his successors.

King Sverri was a "new man." He was born in Norway, but came, five years old, to the Faroes, where he was brought up. The kingdom of Norway he won, sword in hand, with his Birk-banes. A warrior-king like Sverri had not been seen since the days of Harold the Fairhair. But besides all his battles and troubles he was well versed in tales and song and history. The Icelanders had a great liking for him, and refer to his judgment in historical matters; e.g., how Sverri used to speak highly of Olave Tryggason's valour

at Swolder; how Sverri had been entertained by such and such story, and that he had said that this and this tale was not true, but that it was amusing. In Sverri's speeches and addresses to his soldiers we find almost the only allusions in ancient writers to ancient Eddaic songs, to popular legends (nursery tales such as in Grimm's Fairy Tales), and to popular lays. Hated by a large part of his own people as a usurper, and excommunicated by the Pope as an enemy of the Church, although in his youth he had himself received priestly ordination—he bethought himself of finding an historian of his own choice to write down his life. This man he sought and found not among Norsemen, but among Icelanders, in the abbot Karl, of Thingeyrar (died 1211); a sympathizing historian, a man after the king's own heart, for of this the saga bears witness everywhere. With this man the king sat closeted, told him his life, his dreams, and early deeds, dictated to him how to write and what to write. This appears to have been about the year 1186, and up to that date it is thought the saga was written down under the king's eyes, and partly from his own dictation. The latter part of the saga, up to the king's death in 1202, is somewhat briefer, but in word and in spirit it is kith and kin with the former, although here the historian had to write from other sources, unless, indeed, the king all along up to the end of his life communicated with his man in Iceland. The Sverri's Saga is remarkable among the old Icelandic Sagas, and unique from a philological point of view, being stocked with singular and, to an Icelander, unusual words and phrases, evidently due to the king's own inspiration and dictation; but as the transcribers were usually no respecters of such things, and often left out, or substituted common words for choice old words which were less intelligible to them, so it happens that no single perfectly good or authentic text is preserved in any "single" MS. The text of the Eirspennil, although merely an abridgment, is remarkably rich in those phrases; the compiler having evidently had lying before him a very excellent copy of the saga: various sentences and phrases are preserved only here, e.g., Kasta klininginum ok könnunni, answering to the English, "to throw the helve after the hatchet," this and many other things, in the Oxford Dict. marked as Fms. viii, v.l., are due to the text of Eirspennil.

After that saga follows a brief abridgment of the Lives of the kings between 1202-1216, which are also partly lost. We notice here only the curious story of the *Blacksmith and Odin*, p. 237. The last part of the Eirspennil is made up of an abridgment of Hakon's Saga, written by Sturla, the famous writer of the Sturlunga Saga and other historical works (born 1214, died 1284), but as the edition of that saga is not as yet finished, we reserve that to a future notice.

G. VIGFUSSON.

New Publications.

- BIAIS. Annales de la Rochefoucauld, xvi^e et xvii^e siècles. An-goulême: Nadaud et Cie.
- BROSSET, M. Des historiens arméniens des 17 et 18 siècles. Arakel de Tauriz, registre chronologique. Leipzig: Bosz.
- CICERO, M. T. Brutus, sive de claris oratoribus, recensuit L. Quiche-rat. Paris: Hachette.
- FEUILLET DE CONCHES. Louis XVI., Marie-Antoinette, et Madame Elisabeth. Paris: Plon.
- GAIRDNER. Debates in the House of Commons in 1625. Camden Society.
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Philology.

Διηγήσις ὠραιωράτη τοῦ θαυμαστοῦ ἀνδρὸς τοῦ λεγομένου Βελισαρίου, nach der Wiener Handschrift zum ersten Male herausgegeben von Wilhelm Wagner. Hamburg. 1873.

DR. W. WAGNER, who in 1870 edited the first part of a volume of *Medieval Greek Texts* for the Philological Society, has lately published at Hamburg the text of the poem of *Belisarius* from the hitherto inedited Vienna MS. The text by which this composition has up to this time been known is that of the Paris MS., and this has been published more than once, and, among other editors, by Dr. Wagner. The poem, as it appears there, is generally allowed to be the work of Georgillas, the author of the *Plague of Rhodes*, though in the preface to his present work Dr. Wagner gives up the view which, following Koraës and others, he maintained in his *Medieval Greek Texts* (p. 115), that Georgillas was also the author of the *Lament on Constantinople*. The principal interest attaching to the text now published arises from its being in reality another and earlier version of the same poem, which Georgillas must have had before him when he wrote his *Belisarius*, so that he rather expounded and amplified it than composed an original work. The earlier poem contains 556 lines as compared with the 840 of the later, and Dr. Wagner has drawn out in an interesting manner in his preface the contrast in political tendency between the two. The text has been edited with Dr. Wagner's usual care, and is accompanied by well-judged emendations. That this is not an easy task will be understood by anyone who has studied mediæval and modern Greek, since it requires much ingenuity and close acquaintance with the various branches of the literature to recognize words in the peculiar and sometimes perverted forms in which they appear; and this is rendered all the more difficult by the narrow area of literature from which we draw our knowledge of the vocabulary. The notes will be found especially valuable by students of modern Greek from the light they throw on the history and etymology of words.

H. F. TOZER.

A *T Conjugation*, such as exists in *Assyrian*, shown to be a character of early Semitic speech, by its vestiges found in the Hebrew, Phoenician, Aramaic, and Arabic languages. By Richard Cull, F.S.A. Extracted from the *Transactions of the Society of Biblical Archaeology*, vol. 2. London: 1873.

In his memoir on the *t* conjugation Dr. Cull claims to have made "the first announcement of the existence of *t* conju-

gations in Hebrew, Phoenician, and other Shemitic dialects, like those found in the Assyrian" (p. 24); it is difficult to see with what justice. By a *t* conjugation he means a secondary verbal form, produced by the insertion or prefixing of a *t*. Surely such elementary books as Gesenius' Hebrew and Wright's Arabic Grammar, to say nothing of others, have long testified to the existence of such forms in Semitic. "The fact is," says Dr. Cull, "that the profoundest Hebrew scholars, such men as Fürst (!), could not account for this *t* until the recovery of the long-lost Assyrian language enabled them to do so; and no Hebrew scholar appears to have applied this knowledge of the Assyrian to the elucidation of the Hebrew language" (p. 17). It would really almost seem as if Dr. Cull were unaware of the numerous illustrations of Hebrew contained in the Assyriological works of M. Oppert, Professor Schrader, and our countryman Mr. Sayce. There is indeed a reference to the last-mentioned scholar at the foot of page 20, but a strangely inaccurate one.

The paper as a whole is extremely disappointing. The intrusive *t* in all the instances mentioned has been often observed before, and in several of them explained on a principle, as it seems to me, identical with that of Dr. Cull. His sole merit, which I by no means wish to disparage, consists in having formulated this principle more distinctly and traced it to a peculiarity of early Semitic speech, though the way had been already pointed, so far as nouns with *t* prefixed are concerned, by Mr. Sayce in page 110 of his *Assyrian Grammar*. But was it necessary to imbed this very slight contribution to Semitic philology in twenty-nine printed pages, bristling with self-assertion, but derived partly from Fürst, partly from the material common to all students of Assyrian?—to raise the expectations of readers by promising an investigation into all the Semitic dialects, and to redeem the promise in so perfunctory a way? I am afraid, too, that Dr. Cull's readers will not be prepossessed in his favour by his blind idolatry of Fürst—a prophet, as it would seem, out of his own country. He twice misrepresents Gesenius (pp. 7, 9) by neglecting to consult the *Thesaurus*; at the foot of page 12 he falls out with Fürst through not having consulted Hupfeld on Psalm vi. 6; on page 25 he argues from a reading of Pænulus i. 8 which only exists in the imagination of Dr. Fürst; he is unaware (p. 10) of Schlottmann's able and thorough discussion of the etymology of עתורה (Die Siegessäule *Mesa's*, p. 43), though that eminent Orientalist is wrong, where Dr. Cull is right, on the origin of the deity called Ashtoreth, which is properly non-Semitic. The pointing of the Hebrew is occasionally faulty; but I do not wish to accuse Dr. Cull of such a heinous offence.

T. K. CHEVNE.

THE AGE OF PATANJALI.

To the Editor of the ACADEMY.

SIR,—Allow me to say a few words with regard to Prof. Weber's remarks on my article on the age of Patanjali contained in his letter to you published in the number of the *Academy* for the 15th of March last.

The passage on which I base my conclusion that Patanjali was a contemporary of Pushpamitra is not the same as that pointed out by Prof. Weber twelve years ago. The latter occurs in Patanjali's comments on Pāṇini I-1-68, and is consequently in the first part of the first chapter, i.e. in that portion of the *Mahābhāshya* which was printed at Benares under the superintendence of Dr. Ballantyne, to which alone Prof. Weber seems to have had access (see *Ind. Ant.*, vol. i., p. 244, note); while the former occurs in the comments on Pāṇini III-2-123, and is consequently in the second part of the third chapter. Prof. Weber's passage contains the word *Pushpamitra-Sabhā*, "Court or assembly of Pushpamitra," and the only conclusions it warrants are that

Patanjali could not have lived before Pushpamitra and that this latter was a king. Whether he lived at the same time with Pushpamitra or after him the passage does not enable us to decide. And Prof. Weber himself does not go further in his deductions in his review of Dr. Goldstücker's *Pāṇini* (*Ind. Stud.*, vol. v.) So far is he from thinking that Patanjali was a contemporary of Pushpamitra, that he is of opinion that he lived about 25 A.D., i.e. nearly 170 years after Pushpamitra. On the other hand, the passage I have for the first time brought to notice contains the words *iha Pushpamitram yajayāmaḥ*, "Here we sacrifice for Pushpamitra," i.e. "as his priests we perform the sacrifice instituted by him." This is given as an instance of a rule laid down by Kātyāyana that the present tense should be used to denote an action that has begun but not ended. The action of sacrificing for Pushpamitra must have begun some time before Patanjali wrote the passage, and was in continuance and had not ended at the time he wrote it. For it is only when we understand the instance thus that it serves as an illustration of the rule. The conclusion therefore follows that Patanjali was Pushpamitra's contemporary. The details of the argument are given in my article in the *Antiquary*, and I have there quoted these two passages separately with references and given the different conclusions that follow from them as clearly as I could; but still Prof. Weber does not see that they are two distinct passages. I am at a loss to conceive how it could be so. I have recently brought to notice a third passage in the *Mahābhāshya* in which Pushpamitra's sacrifices are spoken of (see *Ind. Ant.*, vol. ii., p. 69).

A letter from Prof. Weber containing a similar remark on my article is published with my reply to it in the *Indian Antiquary* for February last. I have there considered his argument for bringing Patanjali down to 25 A.D. contained in his review of Dr. Goldstücker's *Pāṇini* referred to above. All the so-called "important details" of the argument are based on the supposition that the word *Mādhyamika* occurring in one of the two instances pointed out by Dr. Goldstücker denotes the Buddhistic sect of that name. This supposition, improbable in itself, necessitates a string of other suppositions still more improbable. Some of them are these: that the dynasty known to Hindu writers by the name of *Turushka* was known to Patanjali by the name of *Yavana*, though there is the clearest evidence to show that the latter name was applied to the Greeks during the two or three centuries immediately preceding the Christian era; that Kanishka, himself a Buddhist, persecuted Buddhists and pushed his conquests up to Sāketa or Oude; and that all the events concerning the *Mahābhāshya* recorded in the *Vākyapadīya* and the *Rājatarangīni* took only about twenty years to occur, viz., that the *Mahābhāshya* was written, that it obtained very great reputation over a large part of the country from Kashmir in the north-west to the Deccan, and came to be acknowledged as a work of authority, that it was studied generally, that in the "course of time" it ceased to be studied, and that it was brought into use again by Chandrāchārya and others. There is also a philological objection to the interpretation. Some other explanation, therefore, of the word *Mādhyamika* must be sought; and this is furnished to us by Dr. Kern, who has called attention to a passage in the *Varāha-mihira Sanhitā* in which a people of the name of *Mādhyamikas* is mentioned. My argument will be found fully stated in my reply to Prof. Weber spoken of above.—Yours truly,

RAMKRISHNA G. BIHANDARKAR.

Bombay, 19th April, 1873.

PEHLEVI INSCRIPTIONS.

To the Editor of the ACADEMY.

Mangalore, S. Canara, Madras Presidency, May 12th, 1873.

SIR,—During a recent tour through the Cochin and Travancore States I found some Pehlevi inscriptions which go to prove that there were once large settlements of Persians, probably Manicheans, in S. India. This fact will be of interest to Sanskritists since Prof. Weber's admirable essay on the *Rāmāyana*. Prof. Weber has shown reasons for suspecting Greek influences in the composition of that poem; and it will now, in consequence of this discovery, be possible to prove that much in the modern philosophical schools of India comes from some

form of Christianity derived from Persia ; and this fact at once explains also the origin of the modern Vedānta sects in Southern India exclusively.

In a Syrian (*i.e.* Nestorian) church at Koṭṭayam in Travancore, said to be one of the oldest in the country, I found at the back of a side-altar a granite slab with a cross in bas-relief on it, and round the arched top a short sentence in Pehlevi ; at the foot of the cross a few words in Syriac. On looking round the church I found a similar but evidently older tablet built into the wall. This tablet is nearly covered by whitewash, but shows only a Pehlevi inscription. There is a similar tablet in the Mount church (near Madras) which has long been the property of the Portuguese.

Since my return to Mangalore I have found in Friar Vincenzo Maria's *Viaggio all' Indie Orientali*, p. 135 (Roma, 1672), mention of several such tablets ; he particularly mentions the ones at Cranganore and Meliapore (*i.e.* Madras), and takes them to be relics of the mission of St. Thomas to India. As there is hardly a trace left of Cranganore, it would be useless to search there ; but the older Syrian churches (at Nirānam, Kāyāṇkulam, &c.) will no doubt furnish other copies. In this very out-of-the-way place I have nothing to help in deciphering the Pehlevi inscription, which is nearly the same on the three tablets I have seen ; the first few signs, only, differ. The last word in all looks like *afzid* (may it be increased). As soon as I can get it lithographed I shall send copies to the principal European scholars who occupy themselves with Pehlevi.

The number of these tablets proves that there must have been communities in several places, and those large enough to have churches both on the S. W. and S.E. coasts of India. Cosmas (beginning of the sixth century A.D.) mentions Christians in Male (*i.e.* S.W. India), and that there was a Persian bishop at Kalliana, *i.e.* Kalyāṇapūr, near Udupi, and in this province—a place always reputed to be one of the earliest Christian settlements in India. Nor were these Persians disliked as foreigners are now by the natives of India. Before the beginning of the ninth century A.D. they had acquired sovereign rights over their original settlement, Manigrāmam, by a grant from the Perumāl. These Persians were thus established long before the origin of the modern schools of the Vedānta, and the founders of these sects were *all* natives of places close to Persian settlements. Casikārācārya was born not far from Cranganore where the Persians first founded a colony ; Rāmānuja was born and educated near Madras ; and Madhvācārya, the founder of the sect which approaches nearest of all to Christianity, was a native of Udupi, a place only three or four miles south of Kalyāṇapūr. A comparison of the doctrines of these sects with those of the Manicheans will I think settle the question ; but I must reserve that for another occasion. That these Persians were Manicheans is, I think, to be concluded from the name of their settlement, Manigramam. This can only mean "Manes-town ;" the only other possible meaning, "Jewel-town," is utterly improbable.

Prof. Weber has shown that the Brahmasamāj doctrines are an unacknowledged result of Christian missions in this century ; the S. Indian Vedānta sects must be taken as a similar result of perhaps the earliest Christian (though Manichæan) mission to India.

How close the connection between Persia and India was in the sixth century A.D. is also known from the history of the European versions of the *Pāñcatantra*. The existence of this work in India was then known to the Persians, and this knowledge presupposes a greater knowledge of Indian matters by foreigners than has ever since been the case up to the end of the last century.

I may remark also that the facts I have mentioned above render it probable that Bürzweil or Barzīyeh, who first translated the *Pāñcatantra* into Pehlevi, was actually a Christian, as the Arab historian, Ibn Abu Oseibah, states. The S. Indian Sanskrit *Pāñcatantra* is the oldest yet discovered (see Prof. Benfey's note, *Academy*, vol. iii. pp. 139-140) ; may not Bārzuyeh have got his copy in S.W. India ?

Patriotic Hindus will hardly like the notion that their greatest modern philosophers have borrowed from Christianity ; but as they cannot give an historical or credible account of the origin of these Vedāntist sects, if we take the above facts into consideration, there is

more against them than a strong presumption, for these doctrines were certainly unknown to India in Vedic or Buddhistic times.

I mentioned in my last letter the discovery of an old Jain version of the *Rāmāyaṇa* in Canarese. This is certainly more than a thousand years old, and differs greatly from the *Vālmiki-Rāmāyaṇa*. The Tamil version (by Kampan) is also very old, and deserves examination if the question of the original form of the Sanskrit epic is to be really decided. I hope soon to be able to give you some account of the Canarese version, as I have found an excellent MS., written about 420 years ago, which is wonderfully correct.—I am, faithfully yours,

A. BURNELL.

Notes and Intelligence.

Mr. Alexander J. Ellis is engaged on an English translation of Helmholz's great work on the theory of musical tones, *Die Lehre von den Tönempfindungen*.

Mr. Ellis hopes to complete the printing of the text of the fourth part of his *Early English Pronunciation* by the 1st September of this year. But as the preparation of the indexes will be very laborious, the issue of the volume cannot be expected before the middle of May, 1874.

Edward Thomas, Esq., F.K.S., has been elected a Corresponding Member of the Institute of France.

We learn from *Trübner's Record* that a complete set of the *Jaina Agama*, with commentaries, has recently been added to the Royal Library of Berlin—the first complete set ever brought to Europe.

We learn that the Government of Dutch India has just presented to the Royal Asiatic Society, through the Batavian Society of Arts and Sciences, a collection of upwards of 300 magnificent photographs representing part of the antiquities of Java. In 1862 the late Rev. J. F. G. Brumund was, at the suggestion of the Batavian Society, appointed by the Dutch Government to survey, and furnish a detailed account of, the Hindu remains in Java. This important undertaking was unfortunately cut short in the following year by the untimely death of the reverend gentleman. He left, however, a highly interesting account of several of the most important monuments, which was afterwards published in vol. xxxiii. of the *Verhandelingen van het Bataviaansch Genootschap* (1868). Shortly after Heer van Kinsbergen was entrusted with the task of reproducing by accurate photographs the most interesting and characteristic of these monuments, in detail and from a scientific point of view. The collection, of which a copy has now reached England, is the first instalment of a series which when finished will furnish an excellent and pretty complete view of the pre-Mohammedan remains in Java. The same gentleman is at present engaged in reproducing the splendid and extensive remains in the residency of Radoe, generally known under the name of Boro-Boedoer, after which his photographic apparatus will be brought to bear on monuments of still earlier periods in that part of Java. Thanks to the enlightened policy of the Government of Dutch India and the praiseworthy and successful labours of the Batavian *Genootschap*, the student of Eastern art will thus in a few years be able to avail himself of what will have to be considered as the first comprehensive view of the antiquities of an Eastern country. It may also be hoped that the Batavian Society will soon be able to procure the services of a competent scholar to continue in the same efficient manner the archaeological labours of the late Mr. Brumund.

Mr. Burnell will shortly issue the *Sāmaravidhānabrahmāṇa*, with Sāyāna's comment, a translation and index of words, to be followed by the *Devatāddhyāyabrahmāṇa* and the *Shad-īpsabrahmāṇa*. He is also publishing specimens of some minor dialects of the western coast of Southern India, consisting of translations of St. Matthew xiii. 1-34. Two of these, viz. in the Konkanī, spoken by the Roman Catholics of South Canara, and in the Kodagu (Coorg) language have already been issued.

The same industrious scholar intends to prepare, together with the Rev. C. E. Kennet, a new translation of Beschi's *Shen Tamil Grammar*. The translation of Dr. Babington has long been out of print. "This new translation will be based on additional MSS. of the original Latin (which have never been printed), and one of which is partly in Beschi's autograph. The introduction will give an account of the origin of the Dravidian Grammars and their Sanskrit originals, most of which exist in manuscript and are unknown to European scholars except perhaps by name."

The address of M. Paparregopoulos, the President of the National University at Athens, contains an account of his visit last year to our English Universities. Although he was not more than two months in England, his account of them is remarkably accurate. The University of London especially excites his admiration, but he was also much pleased with Oxford and Cambridge, where the hospitality of the Master of Trinity calls forth a warm acknowledgment. He notices the criticisms passed upon the system of Fellowships by the Rector of Lincoln and Prof. Max Müller ; and warmly praises "the combination of freedom and obedience, of spiritual and bodily exercise" in the life

of the undergraduates, which he holds up to the imitation of his hearers. He also commends "the fatherly love of the colleges for the students and graduates," as well as the life in common which characterizes our English system. Possibly, however, his views would have been considerably modified by a longer acquaintance with Oxford and Cambridge; and he has not failed to be struck with astonishment at the inadequate influence of the professorial body and the neglect of study for its own sake which are too evident in our Universities. "At Oxford," he says, "I had not the good fortune to meet the famous Max Müller, as he had just gone to Strasburg to be present at the re-opening of the University there; but I can assure you that out of 1400 undergraduates who are supposed to study Greek about fourteen only generally attend his learned lectures, in which the oldest and apparently most irregular forms of Greek are explained by means of the Sanskrit." The Athenian University seems to be at present in a highly flourishing state. The number of students attending it has been steadily on the increase. Whereas in 1837-8, the date of its foundation, there were but 127, and in 1850 but 397, there were in 1871 no less than 1239. 955 of w. om were subjects of the Greek Government.

Rudolf Hercher's edition of Theodore Prodromus' *Catonomachia* (Lipsiae, Teubner, 1863) is an interesting little work. It is a kind of jocular tragedy in 384 iambic lines (in Byzantine prosody, the only law being that each line shall terminate with a paroxytonon and not exceed the number of twelve syllables), describing a contest between the Mice and the Cat (*ἡ κάτη*). Ψιχάρπας, the beloved son of the king of mice, is killed by the inexorable enemy, and his death is described by an ἀγγελος quite in the style of ancient tragedy. Finally, however, the cat is killed by a beam (Ξύλον κατελθὼν τὴν ὑπερτάγη στέγην, "Ἐτει παλαιῶν καὶ χρόνων τερανομένων, Ἐπτηγέν αὐτὴν ἐπέ μέσῳ μαφρέψων"), and the mice are freed from their everlasting dread of her depredations. The editing is very careful; but in v. 55 we find what is probably a mere misprint, *τορμαι* instead of *τορμη*; v. 63 we should write *τὸν μέσην* *τροποιέαν*; v. 135 correct the misprint *ορατεν*; and v. 145 we consider the correction *οβύτατες* instead of *διτατες* very unnecessary, comp. 208. An important correction is v. 265, where Hercher's edition reads *αὐτὴν διαχρήσαι*, though it should be *αὐτὴν*. The Byzantine writers often use the reflexive pronoun of the third person instead of the first and second.

A complete edition of K. O. Müller's minor works on art and archæology, in five volumes, has just been published by Messrs. Calvary, of Berlin. In the preface to the fifth volume it is stated that this valuable collection of the great philologer's smaller essays and treatises is to be considered as the forerunner of a new and enlarged edition of the well-known *Handbuch der Kunstarchäologie* by the same author.

We understand that a new edition of Bentley's Dissertation upon the Epistles of Phalaris, together with his short dissertations on the Epistles of Themistocles, Socrates, Euripides, and the Fables of *A&sop*, by Dr. W. Wagner, of Hamburg, is in the press. The new edition will be a faithful reproduction of the original edition, and will thus be superior to Dyce's edition, in which Bentley's spelling was modernized throughout. There will also be philological notes and an introduction.

A new edition of *Fronto*, by Professor W. Studemund (at Strasburg), is ready for press. The new edition of *Gaius* by the same scholar is likewise reported to be on the eve of publication.

Beside the *Studies* published by G. Curtius, and the *Acta societatis philologicoe* of Ritschl, we have to announce the publication of a new collection of similar "studies": *Studia in priscos scriptores latinos collata*, by W. Studemund. The first half of the first volume (viii. and 316 pp.) has just been published by Messrs. Weidmann at Berlin. It contains *Quaestiones metricae* by A. Luchs, *De retractatis fabulis Plautinis* by L. Reinhardt, and a very full treatise *De Syntax interrogationum obliquarum* by E. Becker. The editor himself has added what may (though the expression seems odd) be termed quite an amiable preface.

G. Curtius is about to bring out a new edition of his work on Greek etymology, and a new treatise on the organism of the Greek verb.

The first volume of the *Ephemeris Epigraphica* (Berlin, Reimer) is now complete.

From Dorport (W. Glaeser) we receive a volume of *Addenda Lexicis Latinis* by C. Paueker, containing a pretty large number of words, mostly from late Latin authors.

In July there will be a Congress of Orientalists at Paris. We hear that a considerable number of English and German scholars have been named honorary correspondents to this Congress.

Contents of the Journals.

The Indian Antiquary, ed. by Jas. Burgess. Bombay. Part XIV. February, 1873.—The Chandel Thákurs; by F. N. Wright.

[This account of the Chandels is taken from two modern family histories, one of which is in Persian, the other in Hindi.]—The Early Vaishnava Poets of Bengal, i. Bidyāpati ; by J. Beames. [This poet, whose real name was Basanta Rai, is said to have lived from A.D. 1433 to 1481. His language may be regarded as the representative of the period of transition of an original branch of the Hindi into Bengali as a separate dialect. Several specimens in the Roman character are given with translations and a brief grammatical sketch.]—Notes on Junnar Tāluka; by W. F. Sinclair. [Continued ; account of the city of Junnar and its remains.]—Coorg Superstitions; by Rev. F. Kittel. [Worship of ancestors and demons among the Coorgs.]—The Menhirs of the Hassan District ; by Capt. J. S. F. Mackenzie. [Account of the monumental stones in that district]—Marasa Vakkaligari of Maisūr ; by V. N. Narasimmiyengar. [These people form a subdivision of the Rayat class of Mysore. Among them a peculiar rite is prevalent : their women on becoming mothers offering as a sacrifice to Bhairava Linga the first joints of their right hand ring and little fingers, which are cut off by the village carpenter. Some, however, substitute pieces of gold wire, while a few families repudiate the rite and worship Vishnu.]—Pyal Schools in Madras ; by the late C. E. Gover. [Interesting account of a native school. The Pyal is a bench built against the front wall of every Hindu house in Southern India, usually sheltered by a verandah ; on this the children are seated.]—Review (favourable) of J. Dowson's Grammar of the Urdu or Hindustani Language. Correspondence and Miscellanea. [Controversy between Profs. Weber and Bhandarkar on certain passages in the *Mahābhāṣya*.]

Part XV. March, 1873.—The Kulwadi of the Hassan District; by Capt. J. S. F. Mackenzie. [The Kulwadi, the headman of the Holiars or outcasts living outside the village boundary hedge, were originally the rightful owners of the villages. They now perform the duties of a beadle or policeman. He still receives from the friends of any person who dies in the village a certain fee "to buy from him the ground from the dead."]—On the Subdivisions of the Brâhman caste in Northern Orissa; by J. Beames. [List of the divisions according to the different vedas.] Patanjali's *Mahâbhâshya*; by Prof. R. G. Bhandarkar. [A third passage from the great commentary on Pânini bearing on the date of King Pushpamitra; also two passages from the same work, from which the Prof. B. infers that the Gonarda mentioned as the native country of Patanjali is identical with the modern Gonda, some twenty miles to the north-west of Oudh, whilst Prof. Weber thinks that he lived to the east of Patna; and that Kâtyâyana, the author of the *Vârttikas*, was a native of the south of India—not, as has been hitherto assumed, a grammarian of the Eastern school.]—The Date of Sri Harsha; by K. T. Telang. [The writer states his reasons for doubting the authority of Râjasekhara, the Jain author of the *Harshaprabandha*, as to the date of Sri Harsha, the author of the *Naishadhiya*.]—The Embassy to Khât or China, A.D. 1419; by E. Rehatsek. [Translated from the Persian of Muhammad Khavend Shâh, or Mirkhond's *Rousat-al-Saâfa*. The embassy was sent by King Mirzâ Shâh Rokh, son of Tamerlane, and started from Herât.]—Progress of Oriental Research in 1870-71. [From the Annual Report of the Royal Asiatic Society, June, 1872.]—Cromlechs in Maisur [from a Memorandum by Capt. R. Cole].—The Asiatic Societies.—Review (favourable) of W. G. Palgrave's *Essays on Eastern Questions*; by A. H. B.—Correspondence and Miscellanea [on Indian Dates, by Jas. Ferguson; on the Interpretation of Patanjali, by R. G. Bhandarkar, &c.]

New Publications.

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TABARI. Chronique; traduite par M. H. Zotenberg. Tome III. Trübner.

ERRATA IN No. 73.

Page 210 (b) after second paragraph read third, fourth, and fifth paragraphs on
D. 211.

,, 212 (a) 11 lines from top, for "which" read "what."

" 219 (b) 3 " " " " " " בָּעֵם " read " בָּאֵם "

" 219 (b) 5 " " " " " ummash" read " ummath."

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Vol. IV.—No. 73.

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